

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Ling Xu Examiner #: _____ Date: _____
Art Unit: _____ Phone Number 30 _____ Serial Number: _____
Mail Box and Bldg/Room Location: 11028 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

STAFF USE ONLY

| | Type of Search | Vendors and cost where applicable |
|---------------------------------------|----------------------------|-----------------------------------|
| Searcher: <u>EL</u> | NA Sequence (#) _____ | STN <u>\$176.23</u> |
| Searcher Phone #: _____ | AA Sequence (#) _____ | Dialog _____ |
| Searcher Location: _____ | Structure (#) <u>(1)</u> | Questel/Orbit _____ |
| Date Searcher Picked Up: _____ | Bibliographic <u>(and)</u> | Dr. Link _____ |
| Date Completed: <u>3-4-03</u> | Litigation _____ | Lexis/Nexis _____ |
| Searcher Prep & Review Time: <u>5</u> | Fulltext _____ | Sequence Systems _____ |
| Clerical Prep Time: _____ | Patent Family _____ | WWW/Internet _____ |
| Online Time: <u>80</u> | Other _____ | Other (specify) _____ |

SEARCH REQUEST FORM

Scientific and Technical Information Center

Examiner# : 77924

Art Unit : 1775

Phone Number: 305-0395

Date: 3/3/2003

Serial Number: 09/529,289

MailBox & Bldg/Room Location: CP3 11d28

Results Format Preferred (circle): Paper Disk E-mail

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the coversheet, pertinent claims, and abstract.

Title of Invention:

Coating system for Substrates

Inventors (please provide full names):

Yaacov Almog, Sergio Brandriss

Earliest Priority Filing Date: 10/12/1997

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search claim 1, a substrate comprising a sheet of plastic and an under layer coating comprises a polymer chosen from the group consisting of amine terminated polyamide and amino propyl triethoxy silane, and an overlayer coating on the underlayer.

Please call me if you have any questions.

Thanks

Wing Xu

SCIENTIFIC REFERENCE BR
Sci. & Tech. Info. Cntr

03

Pat. & T.M. Office

=> file reg

FILE 'REGISTRY' ENTERED AT 11:40:26 ON 04 MAR 2003

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COPYRIGHT (C) 2003 American Chemical Society (ACS)

=> d his

FILE 'REGISTRY' ENTERED AT 10:31:59 ON 04 MAR 2003

L1 E AMINOPROPYLTRIETHOXYSILANE/CN
1 SEA AMINOPROPYLTRIETHOXYSILANE/CN
E AMINOPROPYLTRIMETHOXYSILANE/CN
L2 1 SEA AMINOPROPYLTRIMETHOXYSILANE/CN
E AMINOPROPYLTRIPROPOXYSILANE/CN
E 1-PROPANAMINE, 3-(TRIPROPYLSILYL)-/CN
L3 1 SEA "1-PROPANAMINE, 3-(TRIPROPYLSILYL)-"/CN
E 1-PROPANAMINE, 3-(TRIISOPROPYLSILYL)-/CN
E 1-PROPANAMINE, 3-(TRIBUTYLSILYL)-/CN
L4 1 SEA "1-PROPANAMINE, 3-(TRIBUTYLSILYL)-"/CN
E 1-PROPANAMINE, 3-(TRIISOBUTYLSILYL)-/CN
E 1-PROPANAMINE, 3-(TRI-SEC-BUTYLSILYL)-/CN
E 1-PROPANAMINE, 3-(TRI-TERT-BUTYLSILYL)-/CN
E 1-PROPANAMINE, 3-(TRI-S-BUTYLSILYL)-/CN
E 1-PROPANAMINE, 3-(TRI-T-BUTYLSILYL)-/CN
L5 4 SEA (L1 OR L2 OR L3 OR L4)

FILE 'LCA' ENTERED AT 10:36:31 ON 04 MAR 2003

L6 893 SEA TERMIN? OR ENDCAP? OR ENDGROUP? OR ENDBLOCK? OR (END
OR ENDS OR ENDED OR ENDING#) (2A) (CAP OR CAPS OR CAPPED
OR CAPPING# OR BLOCK? OR GROUP? OR GR# OR GRP#)
L7 463 SEA POLYAMIDE# OR POLY(A)AMIDE#

FILE 'HCA' ENTERED AT 10:42:12 ON 04 MAR 2003

L8 1501 SEA L6 (3A) L7
L9 11800 SEA L5 OR AMINOPROPYLTRIETHOXYSILANE# OR AMINOPROPYLTRIME
THOXYSILANE# OR AMINOPROPYLTRIPROPYLSILANE# OR AMINOPROPY
LTRIBUTYLSILANE# OR AMINOPROPYL# (2A) (TRIMETHOXYSILANE#
OR TRIETHOXYSILANE# OR TRIPROPOXYSILANE# OR TRIBUTOXYSILA
NE#)
L10 28 SEA AMINO# (2A) PROPYL# (2A) (TRIMETHOXYLSILANE# OR TRIETHOXY
SILANE# OR TRIPROPYLSILANE# OR TRIISOPROPYLSILANE# OR
TRIBUTYLSILANE# OR TRIISOBUTYLSILANE# OR (TRIMETHOXY OR
TRIETHOXY OR TRIPROPOXY OR TRIISOPROPOXY OR TRIBUTOXY OR
TRIISOBUTOXY) (2A) SILANE#) OR AMINOPROPYL# (2A) TRIISOBUTOXY
SILANE#

FILE 'REGISTRY' ENTERED AT 10:47:57 ON 04 MAR 2003

E POLYETHYLENE TEREPHTHALATE/CN
E PET/CN
L11 3 SEA PET/CN
SEL L11 3 RN

L12 1 SEA 25038-59-9/BI

FILE 'HCA' ENTERED AT 10:50:56 ON 04 MAR 2003

L13 81699 SEA L12 OR PET OR POLYETHYLENETEREPTHALATE# OR POLYETHYLE
NETEREPTHALATE# OR POLYETHYLENE#(2A) (TEREPHTHALATE# OR
TEREPHTHALATE#)

FILE 'LCA' ENTERED AT 10:53:17 ON 04 MAR 2003

L14 126 SEA PLASTIC?(2A) (SHEET? OR SQ# OR SQUARE# OR LAMIN? OR
LAMEL? OR VENEER? OR SHEATH? OR FOUNDATION? OR UNDERLAY?
OR UNDERLAID? OR SUBSTRAT? OR SURFACE? OR BASE# OR
ARTICLE? OR WORKPIEC? OR WORK(A)PIEC? OR ITEM# OR PART
OR PARTS OR SUBSTRUCT? OR UNDERSTRUCT? OR PANEL? OR
PIEC? OR RECTANG?)

FILE 'HCA' ENTERED AT 11:01:41 ON 04 MAR 2003

L15 64328 SEA PLASTIC?(2A) (SHEET? OR SQ# OR SQUARE# OR LAMIN? OR
LAMEL? OR VENEER? OR SHEATH? OR FOUNDATION? OR UNDERLAY?
OR UNDERLAID? OR SUBSTRAT? OR SURFACE? OR BASE# OR
ARTICLE? OR WORKPIEC? OR WORK(A)PIEC? OR ITEM# OR PART
OR PARTS OR SUBSTRUCT? OR UNDERSTRUCT? OR PANEL? OR
PIEC? OR RECTANG?)

L16 31 SEA L8 AND L15

L17 282 SEA (L9 OR L10) AND L15

L18 45817 SEA (THERMAL? OR THERMO) (2A) (PRINT? OR RECORD?) OR
ELECTROG? OR PHOTOCOP? OR XEROX? OR THERMOPRINT? OR
THERMORECORD?

L19 451408 SEA PRINT? OR RECORD?

L20 27224 SEA TONER#

L21 3 S L16 AND (L18 OR L19 OR L20)

L22 30 SEA L17 AND (L18 OR L19 OR L20)

L23 8889 SEA PLASTIC?(2A) SHEET?

L24 15 SEA (L9 OR L10) AND L23

FILE 'REGISTRY' ENTERED AT 11:20:30 ON 04 MAR 2003

SEL L5 1-4 RN

EDIT E2-E5 /BI /CRN

L25 1099 SEA (13822-56-5/CRN OR 17907-98-1/CRN OR 18082-95-6/CRN
OR 919-30-2/CRN)

FILE 'HCA' ENTERED AT 11:21:40 ON 04 MAR 2003

L26 802 SEA L25

L27 41 SEA L26 AND L15

L28 4 SEA L27 AND (L18 OR L19 OR L20)

L29 1 SEA L16 AND L22

L30 0 SEA L16 AND L27

L31 2 SEA L22 AND L27

L32 1 SEA L27 AND L23

L33 6 SEA L27 AND PLASTIC?/TI

L34 13 SEA L21 OR L28 OR L29 OR L31 OR L32 OR L33

L35 13 SEA L24 NOT L34

L36 28 SEA L16 NOT (L34 OR L35)

L37 26 SEA L22 NOT (L34 OR L35 OR L36)
L38 31 SEA L27 NOT (L34 OR L35 OR L36 OR L37)

FILE 'REGISTRY' ENTERED AT 11:40:26 ON 04 MAR 2003

=> file hca

FILE 'HCA' ENTERED AT 11:40:43 ON 04 MAR 2003

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=> d l34 1-13 cbib abs hitstr hitind

L34 ANSWER 1 OF 13 HCA COPYRIGHT 2003 ACS

138:91075 Thermosetting resin compositions and sheets of B-stage resin compositions. Ikekuchi, Nobuyuki (Mitsubishi Gas Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003012923 A2 20030115, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-203306 20010704.

AB The title compns. contain polyfunctional cyanic acid esters and block copolymers of arom. **polyamide** oligomers **terminated** with aminoaryl groups on the 2 ends and having phenolic OH groups with carboxy group-terminated acrylonitrile-butadiene copolymer. Thus, a sheet was prepd. from a soln. of a copolymer of 5-hydroxyisophthalic acid-isophthalic acid-3,4'-oxydianiline copolymer with Hycar CTBN, bis(4-maleimidophenyl)methane, 2,2-bis(4-cyanatophenyl)propane prepolymer, Epikote 1001, EOCN 1025, calcined talc, and Zn octylate.

IC ICM C08L079-00

ICS C08G081-02; C08J005-24; C08J007-04; D06M015-227; D06M015-31; C08L079-00; C08L077-00

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 76

IT Nitrile rubber, uses

(carboxy-**terminated**, reaction products with **polyamides** and thermosetting resins; thermosetting resins contg. prepolymers of polyfunctional cyanic acid esters and polyamide block copolymers with Hycar CTBN for laminates)

IT Impregnating materials

Printed circuit boards

Release films

Textiles

(thermosetting resins contg. prepolymers of polyfunctional cyanic acid esters and polyamide block copolymers with Hycar CTBN for laminates)

IT **Laminated plastics**, uses

(thermosetting resins contg. prepolymers of polyfunctional cyanic acid esters and polyamide block copolymers with Hycar CTBN for laminates)

IT 9003-18-3P

(nitrile rubber, carboxy-**terminated**, reaction products

with **polyamides** and thermosetting resins; thermosetting resins contg. prepolymers of polyfunctional cyanic acid esters and polyamide block copolymers with Hycar CTBN for laminates)

L34 ANSWER 2 OF 13 HCA COPYRIGHT 2003 ACS

136:207753 Laminated image **printing**. Landa, Benzion; Lior, Ishaiau; Ashkenazi, Itzhak (Indigo N.V., Neth.). PCT Int. Appl. WO 2002018151 A1 20020307, 31 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-IL522 20000903.

AB The present invention relates to a method of detg. an adjusted color to be used for computing colorants for **printing** on a specified substrate, comprising: specifying an apparent color; estg. diffuse reflection from an outside surface of colorants when **printed** on the specified substrate; and adjusting the specified color for the effects of the estd. diffuse reflection to det. a color to be used for computing the colorants.

IC ICM B41M007-00

ICS G03G007-00; B41M003-14; G03H001-18; B42D015-10; B42D015-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

ST flexog **printing** roller laminated image coating

IT Polyesters, uses

(Laminated image **printing** cover sheet contg.)

IT Ink-jet **printing**

(adhesive and cover sheet coating for laminated image **printing** in relation to)

IT **Printing** rolls

(adhesive layer and cover sheet coating for laminated image **printing**)

IT **Polyamides**, uses

(amine **terminated**; Laminated image **printing** adhesive layer contg.)

IT Extrusion of **plastics** and rubbers

(**lamination**; adhesive and cover sheet coating for laminated image **printing**)

IT Polycarbonates, uses

(textured; Laminated image **printing** cover sheet contg.)

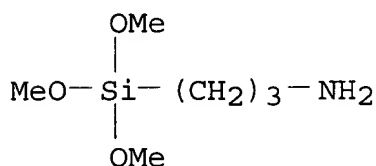
IT **Plastics**, uses

(thermoplastics; Laminated image **printing** adhesive layer contg.)

IT 108-05-4, Vinyl acetate, uses 9002-98-6 25053-53-6, Ethylene-methacrylic acid copolymer

(Laminated image **printing** adhesive layer contg.)

- IT 9002-88-4, Polyethylene
(Laminated image **printing** coating material contg.)
- IT 9002-86-2, PVC 9003-07-0, Polypropylene
(Laminated image **printing** cover sheet contg.)
- L34 ANSWER 3 OF 13 HCA COPYRIGHT 2003 ACS
136:120033 **Printing** ink composition for silica-based laminate
and **printed** laminate. Kotani, Kyoichi; Inoue, Takahiko;
Aoki, Kazuaki (Sakata Inx Corp., Japan). Jpn. Kokai Tokkyo Koho JP
2002030239 A2 20020131, 8 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 2000-249038 20000713.
- AB The compn. comprises a polyurethane comprising an isocyanate and a
reactive functional groups and a curing agent comprising isocyanate
and alkoxysilyl groups. Thus, an ink compn. for **printing**
of SiO₂-deposited Techbarrier T (polyester film) was made from a
mixt. of TiO₂ 40, a polyurethane from the reaction of
3-methyl-1,5-pentylene adipate diol, IPDI, and isophoronediamine 30;
Et acetate contg. Mitec NY 218A and .gamma.-
aminopropyltrimethoxysilane soln. 0.5; and 40:40:20 toluene,
MEK, and isopropanol mixt. 29.4%.
- IT 13822-56-5, .gamma.-**Aminopropyltrimethoxysilane**
(**printing** ink compn. for silica-based laminate and
printed laminate)
- RN 13822-56-5 HCA
CN 1-Propanamine, 3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)



- IT 391257-62-8 391675-81-3 391675-86-8
(**printing** ink compn. for silica-based laminate and
printed laminate)
- RN 391257-62-8 HCA
CN Hexanedioic acid, polymer with 5-amino-1,3,3-
trimethylcyclohexanemethanamine, 5-isocyanato-1-(isocyanatomethyl)-
1,3,3-trimethylcyclohexane, 3-methyl-1,5-pentanediol, Mitec NY 218A
and 3-(trimethoxysilyl)-1-propanamine (9CI) (CA INDEX NAME)

CM 1

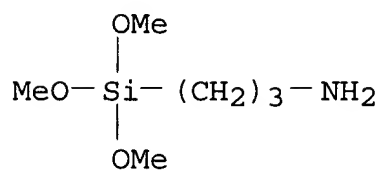
CRN 126340-06-5
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 13822-56-5

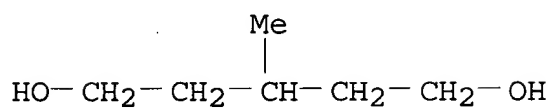
CMF C6 H17 N O3 Si



CM 3

CRN 4457-71-0

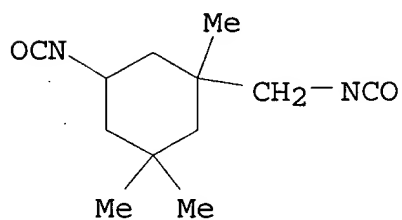
CMF C6 H14 O2



CM 4

CRN 4098-71-9

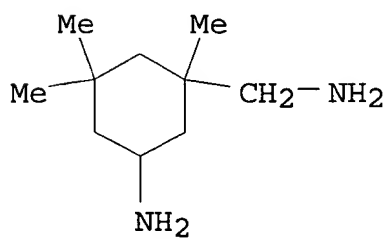
CMF C12 H18 N2 O2



CM 5

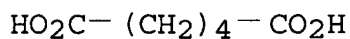
CRN 2855-13-2

CMF C10 H22 N2



CM 6

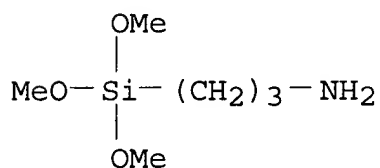
CRN 124-04-9
CMF C6 H10 O4



RN 391675-81-3 HCA
CN Hexanedioic acid, polymer with 5-amino-1,3,3-trimethylcyclohexanemethanamine, 1,6-diisocyanatohexane trimer, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 3-methyl-1,5-pentanediol and 3-(trimethoxysilyl)-1-propanamine (9CI)
(CA INDEX NAME)

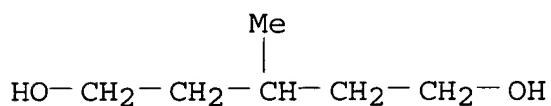
CM 1

CRN 13822-56-5
CMF C6 H17 N O3 Si



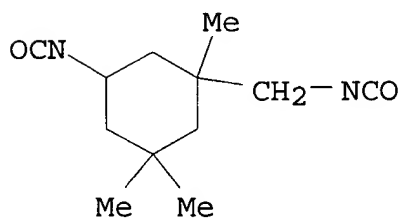
CM 2

CRN 4457-71-0
CMF C6 H14 O2



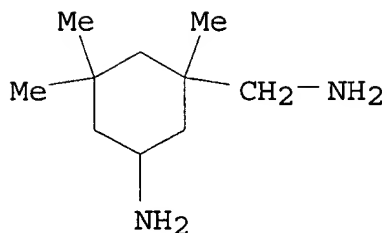
CM 3

CRN 4098-71-9
CMF C12 H18 N2 O2



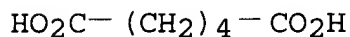
CM 4

CRN 2855-13-2
CMF C10 H22 N2



CM 5

CRN 124-04-9
CMF C6 H10 O4

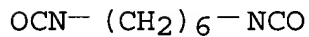


CM 6

CRN 28574-90-5
CMF (C8 H12 N2 O2)3
CCI PMS

CM 7

CRN 822-06-0
CMF C8 H12 N2 O2



RN 391675-86-8 HCA

CN Hexanedioic acid, polymer with 5-amino-1,3,3-trimethylcyclohexanemethanamine, Duranate 24A90E, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, 3-methyl-1,5-pentanediol and 3-(trimethoxysilyl)-1-propanamine (9CI)
(CA INDEX NAME)

CM 1

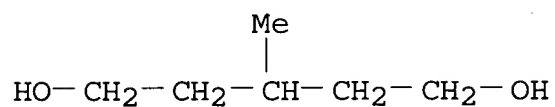
CRN 391675-14-2
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

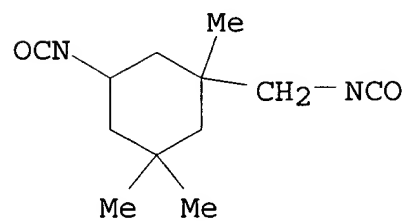
CRN 13822-56-5
CMF C6 H17 N O3 Si



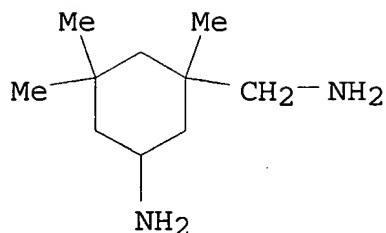
CRN 4457-71-0
CMF C6 H14 O2



CRN 4098-71-9
CMF C12 H18 N2 O2



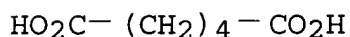
CRN 2855-13-2
CMF C10 H22 N2



CM 6

CRN 124-04-9

CMF C6 H10 O4



- IC ICM C09D011-10
ICS B32B009-00; C08G018-70
- CC 42-12 (Coatings, Inks, and Related Products)
- ST polyurethane ink **printing** silica polyester laminate;
aminopropyltrimethoxysilane IPDI **printing** ink
- IT Polyurethanes, uses
(**printing** ink compn. for silica-based laminate and
printed laminate)
- IT **Laminated plastics**, uses
(**printing** ink compn. for silica-based laminate and
printed laminate)
- IT Inks
(**printing**; **printing** ink compn. for
silica-based laminate and **printed** laminate)
- IT 28574-90-5, Hexamethylene diisocyanate trimer
(Hexane; **printing** ink compn. for silica-based laminate
and **printed** laminate)
- IT 7631-86-9, Silica, uses
(laminated with polyester film; **printing** ink compn. for
silica-based laminate and **printed** laminate)
- IT 286859-64-1, Techbarrier T
(laminated with silica; **printing** ink compn. for
silica-based laminate and **printed** laminate)
- IT 126997-45-3P
(**printing** ink compn. for silica-based laminate and
printed laminate)
- IT 13822-56-5, .gamma.-**Aminopropyltrimethoxysilane**
126340-06-5, Mitec NY 218A
(**printing** ink compn. for silica-based laminate and
printed laminate)
- IT 391257-62-8 391675-81-3 391675-86-8
(**printing** ink compn. for silica-based laminate and
printed laminate)

L34 ANSWER 4 OF 13 HCA COPYRIGHT 2003 ACS

135:20990 Coating composition for the production of abrasion-resistant films on **plastics**. Harenburg, Jens; Roth, Christoph; Auer, Friedrich (Few Chemicals G.m.b.H. Wolfen, Germany). Ger. Offen. DE 19957324 A1 20010531, 8 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1999-19957324 19991129.

AB A coating compn. is described, which forms transparent, antistick, solvent-resistant, abrasion-resistant films on heat-sensitive **plastic surfaces** at <100.degree. in a short time. The coating compn. contains 30-70 mol% hydrolytically polymd. XSi(OR)3 (X = epoxy-terminated alkyl, R = Me or Et), 30-70 mol% hydrolytically polymd. XSi(OR)3 (X = amino group-contg. alkyl, R = Et or Me), and 0-10 mol% product of XSi(OR)3 (X = amino group-contg. alkyl, R = Et or Me) and ZCO2R (Z = C1-9 perfluoroalkyl or perfluoro ether, R = Et or Me).

IT **54115-51-4P 167637-57-2P**
(coating compn. for prodn. of transparent, antistick, solvent-resistant, abrasion-resistant polysiloxane films on heat-sensitive plastics)

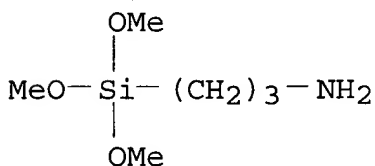
RN 54115-51-4 HCA

CN 1-Propanamine, 3-(trimethoxysilyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 13822-56-5

CMF C6 H17 N O3 Si



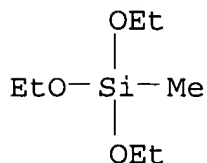
RN 167637-57-2 HCA

CN 1-Propanamine, 3-(triethoxysilyl)-, polymer with triethoxymethylsilane (9CI) (CA INDEX NAME)

CM 1

CRN 2031-67-6

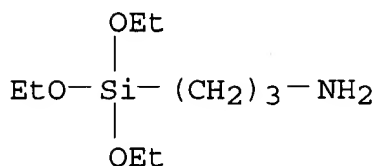
CMF C7 H18 O3 Si



CM 2

CRN 919-30-2

CMF C9 H23 N O3 Si



IC ICM C09D183-04

ICS C08J007-16

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 38

ST abrasion solvent resistant antistick transparent polysiloxane coating **plastic surface**; aminosilane fluoro ester adduct coating **plastic surface**; amino polysiloxane coating **plastic surface**; epoxy polysiloxane coating **plastic surface**

IT 29226-47-9P, N-(2-Aminoethyl)-3-aminopropyltrimethoxysilane homopolymer **54115-51-4P** 56325-93-0P, 3-Glycidyloxypropyltrimethoxysilane homopolymer 141087-51-6P, 3-Glycidyloxypropyltrimethoxysilane-tetraethoxysilane copolymer **167637-57-2P**

(coating compn. for prodn. of transparent, antistick, solvent-resistant, abrasion-resistant polysiloxane films on heat-sensitive plastics)

L34 ANSWER 5 OF 13 HCA COPYRIGHT 2003 ACS

134:18247 Oxygen-barrier **plastic** films for packagings.

Yamamoto, Tetsuya; Takagi, Hiroyuki; Miyake, Ryuta; Maruyama, Toshihide (Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan; Daicel Chemical Industries, Ltd.). Jpn. Kokai Tokkyo Koho JP 2000326448 A2 20001128, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-142965 19990524.

AB The O-barrier plastic films have coatings exhibiting O permeability 0.1-100 mL/m²-24-h at 20, 40, 60, and 80.degree. (temp. measured on coating sides) and formed by reaction of org. chain-contg. silane monomers with functional terminals on both ends and silanes. The films are suitable for packagings for foods, medicines, sanitary goods, etc. Thus, 1 mol .gamma.-aminopropyltrimethoxysilane and 0.5 mol resorcinol diglycidyl ether were reacted at 50-70.degree. to give (MeO)₃Si(CH₂)₃NHCH₂CH(OH)CH₂O-m-C₆H₄-OCH₂CH(OH)CH₂NH(CH₂)₃Si(OMe)₃, mixed with (EtO)₄Si at ratio 100:250, applied on a biaxially oriented polypropylene film (20-.mu.m thick), and dried to give a 22-.mu.m thick barrier film having excellent O barrier property and coating adhesion initially and after 30 min in boiling water, resp.

IT 309255-28-5P

(silicate-contg.; O-barrier plastic films with
silsesquioxane-silicate-type O barrier coatings for packagings)

RN 309255-28-5 HCA

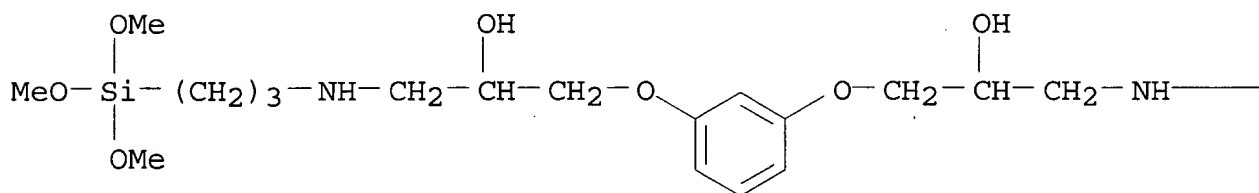
CN Silicic acid (H₄SiO₄), tetramethyl ester, polymer with
1,1'-[1,3-phenylenebis(oxy)]bis[3-[[3-(trimethoxysilyl)propyl]amino]-
2-propanol] and 3-(trimethoxysilyl)-1-propanamine (9CI) (CA INDEX
NAME)

CM 1

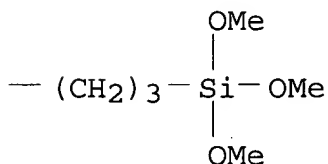
CRN 309255-25-2

CMF C24 H48 N2 O10 Si2

PAGE 1-A



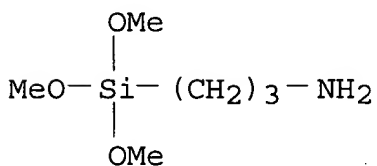
PAGE 1-B



CM 2

CRN 13822-56-5

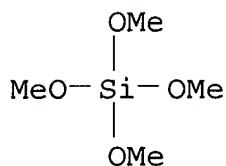
CMF C6 H17 N O3 Si



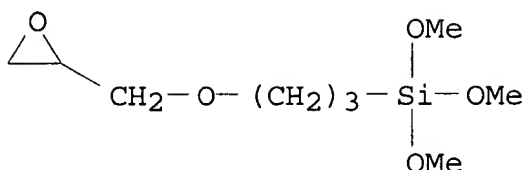
CM 3

CRN 681-84-5

CMF C4 H12 O4 Si



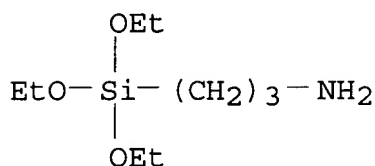
- IC ICM B32B027-00
ICS B32B027-32; B32B027-36; C08G077-54; C08J007-04; C08L101-00
- CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 17
- IT 9003-07-0, Polypropylene
(biaxially oriented, **substrates**; O-barrier
plastic films with silsesquioxane-silicate-type O barrier
coatings for packagings)
- IT 309255-26-3P 309255-27-4P **309255-28-5P** 309255-29-6P
(silicate-contg.; O-barrier plastic films with
silsesquioxane-silicate-type O barrier coatings for packagings)
- L34 ANSWER 6 OF 13 HCA COPYRIGHT 2003 ACS
132:280176 Laminated polyester films with excellent antistatic and
adhesive properties. Yano, Shinji; Fukuda, Masayuki; Kitazawa,
Satoshi (Teijin Ltd., Japan). Jpn. Kokai Tokyo Koho JP 2000108286
A2 20000418, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP
1998-285074 19981007.
- AB The films, useful for OHP films, magnetic **recording** media,
release films, etc., have polyester film layers, and corona
discharge-treated layers contg. antistatic agents and resins
(selected from polyester, acrylic resin, acryl-modified polyester,
polyurethane, polysiloxane, epoxy resin, and vinyl resin). Thus, a
PET film was coated with a 20:70 mixt. of
dedecyldimethylethylammonium Et sulfate and 35:13:2:45:5
terephthalic acid-isophthalic acid-Na 5-sulfoisophthalate-ethylene
glycol-diethylene glycol copolymer and corona discharge treated to
give a test piece showing wetting index 54 dyne/cm and good
antistaticity and adhesion with magnetic coating and UV-curable ink.
- IT **177564-07-7P**, .gamma.-**Aminopropyltriethoxysilane**
-.gamma.-glycidoxypropyltrimethoxysilane copolymer
(corona discharge-treated polyester films having antistatic
layers with good adhesion to magnetic coatings and UV-curable
inks)
- RN 177564-07-7 HCA
CN 1-Propanamine, 3-(triethoxysilyl)-, polymer with
trimethoxy[3-(oxiranylmethoxy)propyl]silane (9CI) (CA INDEX NAME)
- CM 1
- CRN 2530-83-8
CMF C9 H20 O5 Si



CM 2

CRN 919-30-2

CMF C9 H23 N O3 Si



IC ICM B32B027-36

ICS B32B007-02; B32B027-18; C08J005-18; C08J007-04; C08K005-19;
C08K005-42; C08L067-02; C09D163-00; C09D167-02; C09D175-04;
C09D183-04

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 77

ST antistaticity polyester multilayer film dodecyldimethylethylammonium
sulfate; corona treatment film adhesion magnetic coating; PET
laminate **printing** ink adhesion

IT Antistatic agents

Electric corona

Laminated plastic films

Magnetic memory devices

(corona discharge-treated polyester films having antistatic
layers with good adhesion to magnetic coatings and UV-curable
inks)IT 822-06-0DP, HDI, reaction products with polybutadiene polyol and
polyethylene glycol 9003-17-2DP, Polybutadiene, polyols, reaction
products with polyethylene glycol and HDI 25322-68-3DP,
Polyethylene glycol, reaction products with polybutadiene polyol and
HDI 41686-21-9P, Ethyl acrylate-2-hydroxyethyl methacrylate-methyl
methacrylate-N-methylolacrylamide copolymer 87139-72-8P,
Diethylene glycol-ethylene glycol-isophthalic acid-sodium
5-sulfoisophthalate-terephthalic acid copolymer **177564-07-7P**
, .gamma.-**Aminopropyltriethoxysilane**-.gamma.-
glycidoxypropyltrimethoxysilane copolymer 263841-34-5P, Acrylic
acid-ethylene glycol-glycidyl methacrylate-isobutyl
methacrylate-isophthalic acid-methacrylic acid-methyl
methacrylate-neopentyl glycol-sodium 5-sulfoisophthalate-
terephthalic acid copolymer

(corona discharge-treated polyester films having antistatic layers with good adhesion to magnetic coatings and UV-curable inks)

L34 ANSWER 7 OF 13 HCA COPYRIGHT 2003 ACS

132:7617 **Plastic** spacer for liquid crystal display. Ochitani, Yukio (Sekisui Fine Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11326916 A2 19991126 Heisei, 5 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-125929 19980508.

AB The plastic microparticles contain .gtoreq.5 % monomers contg. .gtoreq.2 ethylenic unsatd. groups, wherein the ethylenic unsatd. group(s) is polymd. to form the **plastic** microparticle **surface**, and the surface is polymn.-coated with monomers contg. C8-22-alkyl, amino, or amido. The liq. crystal display utilizing the above plastic microparticle spacers shows high contrast and excellent displaying quality.

IT **251292-26-9P**, (.gamma.-Aminopropyl)trimethoxysilane-dodecyltrimethoxysilane copolymer
(plastic microparticle spacer coated with)

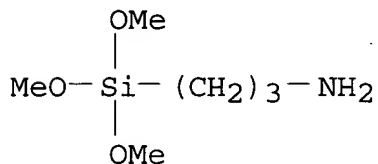
RN 251292-26-9 HCA

CN 1-Propanamine, 3-(trimethoxysilyl)-, polymer with dodecyltrimethoxysilane (9CI) (CA INDEX NAME)

CM 1

CRN 13822-56-5

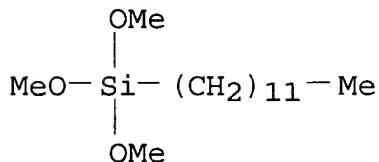
CMF C6 H17 N O3 Si



CM 2

CRN 3069-21-4

CMF C15 H34 O3 Si



IC ICM G02F001-1339

ICS C08F291-00; C08L051-00

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 151931-75-8P, N-Isopropylacrylamide-stearyl acrylate copolymer
 251292-25-8P, Decyl acrylate-N,N-dimethylaminoethyl methacrylate
 copolymer **251292-26-9P**, (.gamma.-
 Aminopropyl)trimethoxysilane-dodecyltrimethoxysilane copolymer
 251292-27-0P
 (plastic microparticle spacer coated with)

L34 ANSWER 8 OF 13 HCA COPYRIGHT 2003 ACS

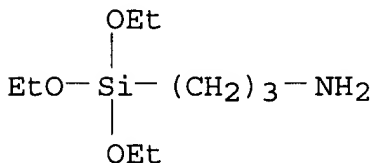
130:274062 Coatings for substrate for **printing toner**
 image thereon. Almog, Yaacov; Brandiss, Sergio (Indigo N.V.,
 Neth.). PCT Int. Appl. WO 9919773 A1 19990422, 20 pp. DESIGNATED
 STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU,
 CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP,
 KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
 MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
 UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW:
 AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB,
 GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English).
 CODEN: PIXXD2. APPLICATION: WO 1998-IL491 19981008. PRIORITY: IL
 1997-121951 19971012; WO 1997-IL391 19971127.

AB A substrate suitable for **printing a toner** image
 thereon comprises a **plastic sheet**, an
underlayer coating, on the **plastic sheet**
 , comprising a substance chosen from amine-terminated
polyamides, silane coupling agents, and
aminopropyltriethoxysilane, and an overlayer coating,
 directly on the underlayer coating, comprising a polymer material
 and having an outer surface to which a **toner** image can be
 fused and fixed, the polymer material preferably consisting
 essentially of a polymer chosen from the group consisting of
 ethylene-acrylic acid copolymer, poly(vinylpyridine), and
 styrene-butadiene copolymer.

IT **919-30-2, 3-Aminopropyltriethoxysilane**
 (electrostatog. **toner** receptors from **plastic**
sheets coated with polymer compns. contg.)

RN 919-30-2 HCA

CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



IC ICM G03G007-00

ICS G03G013-16; G03G013-20; G03G013-22

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)

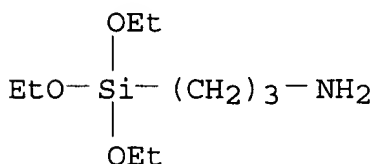
ST polymer coated film electrostatog **toner** receptor;
 polyamide coated film electrostatog **toner** receptor

- IT **Polyamides**, uses
(amine-terminated; electrostatog. toner
receptors from **plastic sheets** coated with
polymer compns. contg.)
- IT **Electrographic toners**
Electrophotographic toners
(polymer-coated **plastic sheets** as receptors
of)
- IT Plastic films
(with polymer coatings as receptors of electrostatog.
toners)
- IT **919-30-2, 3-Aminopropyltriethoxysilane**
9003-47-8, Poly(vinylpyridine) 9003-55-8, Butadiene-styrene
copolymer 9010-77-9, Ethylene-acrylic acid copolymer 99820-90-3,
Macromelt 6239
(electrostatog. toner receptors from **plastic**
sheets coated with polymer compns. contg.)
- L34 ANSWER 9 OF 13 HCA COPYRIGHT 2003 ACS
126:239482 Manufacture of **plastic-polysilazane**
laminated films. Igarashi, Satoshi; Hachiman, Kazuo;
Yatabe, Toshiaki (Teijin Ltd, Japan). Jpn. Kokai Tokkyo Koho JP
09039161 A2 19970210 Heisei, 8 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1995-196413 19950801.
- AB The films are manufd. by **laminating plastic**
films with a polysilazane layer via an intermediate layer contg.
.gtoreq.50% epoxy resins, phenoxy resins, urethane resins, silicone
resins, and/or (meth)acrylate polymers. Thus, a bisphenol A
polycarbonate film was coated with a compn. contg. EOCN-104S (cresol
novolak epoxy resin) 100, methylhexahydrophthalic anhydride 74, and
1,8-diazabicyclo(5,4,0)undecene 5 parts, and then with a
polysilazane (N-L110) to give a film showing haze 0.2%, no cracks,
and good adhesion.
- IT **29159-37-3, .gamma.-Aminopropyltriethoxysilane** homopolymer
(interlayer; manuf. of **plastic-polysilazane**
laminated films)
- RN 29159-37-3 HCA
CN 1-Propanamine, 3-(triethoxysilyl)-, homopolymer (9CI) (CA INDEX
NAME)

CM 1

CRN 919-30-2

CMF C9 H23 N O3 Si



- IC ICM B32B027-00
ICS B32B027-08; B32B027-36; C08J007-04; C08L069-00; C08L071-10;
C08L083-16
- CC 38-3 (Plastics Fabrication and Uses)
- ST **plastic polysilazane laminate** interlayer crack
resistance; epoxy resin interlayer **laminate**
plastic polysilazane; phenoxy resin interlayer
laminate plastic polysilazane; urethane resin
interlayer **laminate plastic polysilazane**;
silicone resin interlayer **laminate plastic**
polysilazane; acrylate polymer interlayer **laminate**
plastic polysilazane; methacrylate polymer interlayer
laminate plastic polysilazane
- IT Acrylic polymers, uses
Epoxy resins, uses
Phenoxy resins
Polysiloxanes, uses
Polyurethanes, uses
(interlayer; manuf. of **plastic-polysilazane**
laminated films)
- IT **Laminated plastics**, uses
Silazanes
(manuf. of **plastic-polysilazane laminated**
films)
- IT 184902-16-7P, EOCN 104S-methylhexahydrophthalic anhydride copolymer
(interlayer; manuf. of **plastic-polysilazane**
laminated films)
- IT 79-10-7D, Acrylic acid, esters, polymers 79-41-4D, Methacrylic
acid, esters, polymers 25068-38-6, Pheno Tohto YP 50
29159-37-3, .gamma.-Aminopropyltriethoxysilane homopolymer
160903-42-4, PC 7A 181971-92-6 188569-02-0
(interlayer; manuf. of **plastic-polysilazane**
laminated films)
- IT 24936-68-3, Bisphenol A polycarbonate, uses 25037-45-0
(**substrate**; manuf. of **plastic-polysilazane**
laminated films)
- L34 ANSWER 10 OF 13 HCA COPYRIGHT 2003 ACS
123:231492 Crosslinked two-layer coats on **plastic**
substrates and their formation. Yamamoto, Naoki; Nakada,
Akira; Ishita, Hitoshi; Watanabe, Hiroyuki; Tayama, Suehiro; Kawai,
Osamu (Mitsubishi Rayon Co, Japan). Jpn. Kokai Tokkyo Koho JP
07068714 A2 19950314 Heisei, 13 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1993-237234 19930831.
- AB Abrasion-, scratch- and weather-resistant coatings comprise an outer
layer contg. inorg. particles and a lower layer substantially free
of inorg. particles and they are formed by applying a compn. of (a)
crosslinkable compds. contg. .gtoreq.2 (meth)acryloyloxy groups or a
mixt. of .gtoreq.50% of the compds. and other copolymerizable
compds., (b) inorg. particles, typically colloidal silica,
surface-modified with hydrolysis products of SiR1aR2b(OR3)c [R1, R2
= C1-10 hydrocarbyl (alkyl, aryl, aralkyl, group contg. ether

linkage, ester linkage, C:C bond, or amino linkage); R3 = H, C1-10 hydrocarbyl; a, b = 0-3; c = 1-4; a + b + c = 4], and (c) photoinitiators to a **plastic substrate** and photocuring. Thus, 100 parts Oscal 1432 was stirred with 11.2 parts trimethoxy(p-vinylphenyl)silane and 3 parts 0.01N HCl at 40.degree. for 1 h, mixed with 45 parts 1,6-hexanediol diacrylate, stripped of the volatiles under reduced pressure, and mixed with diphenyl(trimethylbenzoyl)phosphine oxide 2.4, benzophenone 0.8, and Tinuvin PS 5 parts to give a coating compn., which was applied to a polycarbonate sheet and UV-cured to form a 14.0-.mu.m-thick coat rich in silica in a 6.0-.mu.m-thick layer from the surface. The coated film showed scratch resistance (as difference in haze before and after scratching with steel wool) 0.3%, abrasion resistance (as difference in haze before and after Taber abrasion test) 1.1%, cross-cut adhesion 100/100, and no change after 2000-h exposure to a sunshine arc weatherometer.

IT 168543-56-4

(coatings for colloidal silica in one-coat-two-layer acrylic coatings with abrasion and scratch and weather resistance for plastics)

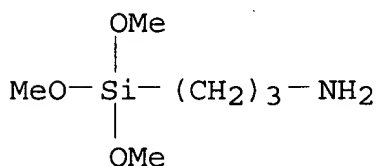
RN 168543-56-4 HCA

CN 1-Propanamine, 3-(trimethoxysilyl)-, polymer with trimethoxyphenylsilane (9CI) (CA INDEX NAME)

CM 1

CRN 13822-56-5

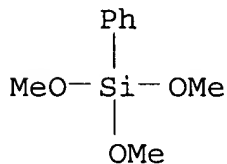
CMF C6 H17 N O3 Si



CM 2

CRN 2996-92-1

CMF C9 H14 O3 Si



IC ICM B32B027-06

ICS B32B027-20; C08F002-48; C08J007-04; C09D004-02

CC 42-10 (Coatings, Inks, and Related Products)

IT 52004-97-4, [.gamma.-(Methacryloyloxy)propyl]trimethoxysilane
homopolymer 159973-12-3 162922-37-4 **168543-56-4**
(coatings for colloidal silica in one-coat-two-layer acrylic
coatings with abrasion and scratch and weather resistance for
plastics)

L34 ANSWER 11 OF 13 HCA COPYRIGHT 2003 ACS
123:201330 Manufacture of packaging materials. Takehara, Reiji;
Ishibashi, Toshinori; Nunokawa, Yoko; Hashizume, Toyomi; Takayanagi,
Hitoshi (Dainippon Ink & Chemicals, Japan). Jpn. Kokai Tokkyo Koho
JP 07040500 A2 19950210 Heisei, 16 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1993-251629 19931007. PRIORITY: JP 1993-127004
19930528.

AB The title procedure giving packaging materials with good boiling and
retort resistance, useful for food packaging, comprise
printing water-based inks contg. crosslinked polyurethane
particle water dispersions followed by **laminating** with
plastic films or metal foils. Thus, (a) 52.0 parts of an
ink base comprising a 39.7%-nonvolatile water-based dispersion with
viscosity 540 cP contg. acrylic acid-Me methacrylate-Bu
methacrylate-Bu acrylate-styrene copolymer (initial reactant ratio
36:300:132:154) 28, TiO₂ 30, EtOH 6, and water 4 parts, (b) 24.4
parts of a 35.6%-nonvolatile water dispersion with viscosity 340 cP
contg. particles with diam. 40-nm prepd. by emulsion polymn. of
Placel 212 (polycaprolactone diol) 186.9, IPDI 100.0,
2,2-dimethylolpropionic acid 20.1, Burnock DN 950S 16.2, and
diethylenetriamine 5% soln. 234 parts under heating in the presence
of dibutyltin dilaurate and Et₃N, (c) 13.5 parts EtOH, and (d) 10.1
parts water were mixed, applied to a surface-treated PET film,
dried, bonded to Al-LLDPE laminate, and aged at 50.degree. for 72 to
give a test piece showing resistance to whitening, blistering, and
delamination after boiling and retort test.

IT **168196-14-3P**
(food packaging with boiling and retort resistance prepd. by
printing water-based inks contg. crosslinked polyurethane
particle water dispersions followed by **laminating** with
plastic films or metal foils)

RN 168196-14-3 HCA
CN Hexanedioic acid, polymer with 5-amino-1,3,3-
trimethylcyclohexanemethanamine, 1,4-butanediol,
5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane,
Placel 205A and 3-(triethoxysilyl)-1-propanamine (9CI) (CA INDEX
NAME)

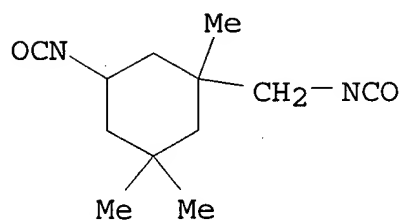
CM 1

CRN 162534-91-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

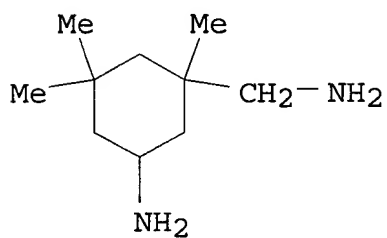
CM 2

CRN 4098-71-9
CMF C12 H18 N2 O2



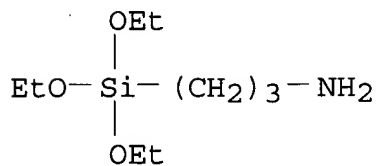
CM 3

CRN 2855-13-2
CMF C10 H22 N2



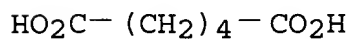
CM 4

CRN 919-30-2
CMF C9 H23 N O3 Si



CM 5

CRN 124-04-9
CMF C6 H10 O4



CM 6

CRN 110-63-4
CMF C4 H10 O2

HO- (CH₂)₄-OH

- IC ICM B32B015-08
ICS B32B027-28
- CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 17
- IT Polyesters, miscellaneous
(substrates; food packaging with boiling and retort resistance
prepd. by **printing** water-based inks contg. crosslinked
polyurethane particle water dispersions followed by
laminating with **plastic** films or metal foils)
- IT Packaging materials
(heat- and water-resistant, food packaging with boiling and
retort resistance prep'd. by **printing** water-based inks
contg. crosslinked polyurethane particle water dispersions
followed by **laminating** with **plastic** films or
metal foils)
- IT Water-resistant materials
(packaging, heat-resistant, food packaging with boiling and
retort resistance prep'd. by **printing** water-based inks
contg. crosslinked polyurethane particle water dispersions
followed by **laminating** with **plastic** films or
metal foils)
- IT Heat-resistant materials
(packaging, water-resistant, food packaging with boiling and
retort resistance prep'd. by **printing** water-based inks
contg. crosslinked polyurethane particle water dispersions
followed by **laminating** with **plastic** films or
metal foils)
- IT Urethane polymers, properties
(polyester-, food packaging with boiling and retort resistance
prepd. by **printing** water-based inks contg. crosslinked
polyurethane particle water dispersions followed by
laminating with **plastic** films or metal foils)
- IT 162978-40-7P 168196-13-2P 168196-14-3P 168216-95-3P
(food packaging with boiling and retort resistance prep'd. by
printing water-based inks contg. crosslinked polyurethane
particle water dispersions followed by **laminating** with
plastic films or metal foils)
- IT 39527-54-3P, Acrylic acid-butyl acrylate-butyl methacrylate-methyl
methacrylate-styrene copolymer
(in ink bases; food packaging with boiling and retort resistance
prepd. by **printing** water-based inks contg. crosslinked
polyurethane particle water dispersions followed by
laminating with **plastic** films or metal foils)
- IT 74-85-1D, Ethene, polymers
(linear, substrates; food packaging with boiling and retort

resistance prep'd. by **printing** water-based inks contg. crosslinked polyurethane particle water dispersions followed by **laminating** with **plastic** films or metal foils)

IT 7429-90-5, Aluminum, miscellaneous
(substrates; food packaging with boiling and retort resistance prep'd. by **printing** water-based inks contg. crosslinked polyurethane particle water dispersions followed by **laminating** with **plastic** films or metal foils)

L34 ANSWER 12 OF 13 HCA COPYRIGHT 2003 ACS

122:136309 Latent fluorescent coating compositions and their use in fluorescent markers. Tajima, Yosuke (Sekisui Chemical Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 06248201 A2 19940906 Heisei, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-36445 19930225.

AB Title compns. with good transparency, scratch and weather resistance comprise (A) fluorescent pigments with primary particle diam. $\leq 0.5 \mu\text{m}$ ($\leq 10\%$ of particles showing diam. $\geq 1.0 \mu\text{m}$) capable of developing color by light with specified wavelength but not by solar rays, (B) metal alkoxide condensation products, H_2O , and hydrophilic org. solvents, wherein 0.01-10 part of A is used based on 100 parts of B. The compns. are applied on a transparent **plastic substrate** and cured to give a latent fluorescent marker. Thus, a mixt. of MeSi(OMe)_3 100, $i\text{PrOH}$ 150, and H_2O 40 parts was heated at 70°C . to give a product with av. mol. wt. 3000, which was mixed (100 parts) with 0.7 part powd. NP 105 (fluorescent pigment) and 0.1 part γ -aminopropyltrimethoxysilane (crosslinking catalyst), applied on a polycarbonate sheet to $7 \mu\text{m}$ thickness, dried, and heated to give a latent fluorescent marker emitting light upon UV-irradn. at 254 nm.

IT 161116-14-9P
(latent fluorescent coating compns. and their use in fluorescent markers)

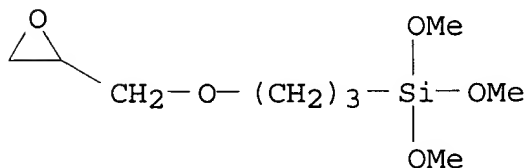
RN 161116-14-9 HCA

CN 1-Propanamine, 3-(triethoxysilyl)-, polymer with diethoxydimethylsilane and trimethoxy[3-(oxiranymethoxy)propyl]silane (9CI) (CA INDEX NAME)

CM 1

CRN 2530-83-8

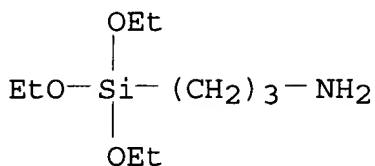
CMF C9 H20 O5 Si



CM 2

CRN 919-30-2

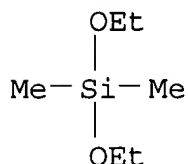
CMF C9 H23 N O3 Si



CM 3

CRN 78-62-6

CMF C6 H16 O2 Si



IC ICM C09D005-22

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 35, 38

IT **Plastics**(thermo-, transparent, **sheets**; latent fluorescent coating compns. and their use in fluorescent markers)

IT 29434-25-1P, Vinyltriethoxysilane polymer 89885-26-7P, Phenyltrimethoxysilane polymer **161116-14-9P** 161116-15-0P, Methyltriethoxysilane-tetrabutoxyzirconium copolymer (latent fluorescent coating compns. and their use in fluorescent markers)

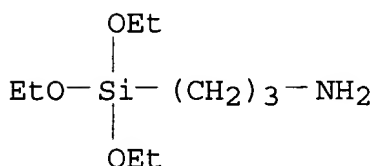
L34 ANSWER 13 OF 13 HCA COPYRIGHT 2003 ACS

116:237486 Coating of **plastic** moldings with silica.

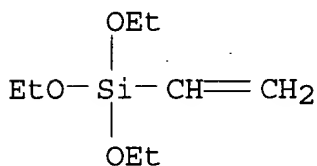
Takahashi, Toru; Hatasawa, Takenobu; Yamaguchi, Kenzo; Miyamoto, Kazuaki (Sekisui Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 03223342 A2 19911002 Heisei, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1989-245475 19890920. PRIORITY: JP 1989-70113 19890322.

AB The title process, giving good chem. and weather resistance and moisture permeability and useful for magnetic disks or window glass substitutes, comprises plasma polymn. of org. Si compds. on the **plastic surface** and coating with SiO₂ films. Thus, a polycarbonate molding was treated with a CH₂:CHSi(OMe)₃ plasma and dipped in aq. SiO₂ to give a coating with good adhesion after 5 h at 80.degree., 200 h Weatherometer exposure, or 1 h in

boiling H₂O.
 IT 30916-80-4
 (primers, plasma-polymd., for silica coatings on plastics)
 RN 30916-80-4 HCA
 CN 1-Propanamine, 3-(triethoxysilyl)-, polymer with
 ethenyltriethoxysilane (9CI) (CA INDEX NAME)
 CM 1
 CRN 919-30-2
 CMF C9 H23 N O3 Si



CM 2
 CRN 78-08-0
 CMF C8 H18 O3 Si



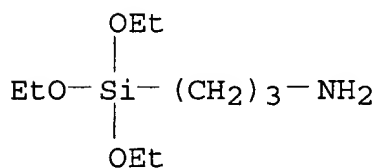
IC ICM C08J007-04
 ICS C23C008-16; C23C014-06; C23C016-00
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 38
 IT **Recording** apparatus
 (magnetic disks, silica coating of, primers for)
 IT 25498-05-9 29382-69-2, Trimethoxyvinylsilane homopolymer
 30812-70-5 30916-80-4 52004-97-4 139469-49-1,
 Hexamethyldisilazane-hexamethyldisiloxane copolymer 139469-50-4
 139469-51-5
 (primers, plasma-polymd., for silica coatings on plastics)

=> d l35 1-13 cbib abs hitstr hitind

L35 ANSWER 1 OF 13 HCA COPYRIGHT 2003 ACS
 137:102831 **Plastic adhesive sheet** containing
 magnetic material and manufacture of the sheet. Inoue, Hiroshi;
 Saita, Seiji (Toyo Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo
 Koho JP 2002201447 A2 20020719, 10 pp. (Japanese). CODEN: JKXXAF.

APPLICATION: JP 2000-399433 20001227.

- AB The sheet contains an adhesive resin and a powd. soft magnetic material treated with a silane- or Ti-type coupling agent. The sheet is manufd. by the process involving treatment of the powd. soft magnetic material with the coupling agent, sep. prepg. a varnish of an adhesive resin, mixing and dispersing of the powder in the varnish, molding of the mixt., and drying of the resulting molded sheet. The adhesive sheet, which is free from bubbles inside, shows effective magnetic flux leakage prevention.
- IT 919-30-2, TSL 8331
(**plastic adhesive sheet** contg. powd. magnetic material treated with silane- or titanium-type coupling agent)
- RN 919-30-2 HCA
- CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



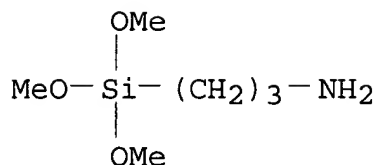
- IC ICM C09J163-00
ICS C09J007-00; C09J011-04; C09J201-00; H01L021-52; H05K009-00
- CC 77-8 (Magnetic Phenomena)
Section cross-reference(s): 38, 39
- ST **plastic adhesive sheet** magnetic material
dispersion; silane coupler treated magnetic material adhesive;
titanium coupler treated magnetic material adhesive; magnetic flux
leakage prevention plastic adhesive
- IT Coupling agents
Magnetic materials
Magnetic shields
(**plastic adhesive sheet** contg. powd. magnetic material treated with silane- or titanium-type coupling agent)
- IT Acrylic polymers, uses
Epoxy resins, uses
Phenolic resins, uses
Polyimides, uses
Polysiloxanes, uses
Polyurethanes, uses
Thermoplastic rubber
(**plastic adhesive sheet** contg. powd. magnetic material treated with silane- or titanium-type coupling agent)
- IT Polyimides, uses
(polyamide-; **plastic adhesive sheet** contg. powd. magnetic material treated with silane- or titanium-type coupling agent)
- IT Polyamides, uses
(polyimide-; **plastic adhesive sh et** contg. powd. magnetic material treated with silane- or titanium-type coupling agent)

- IT Adhesives
 (sheets; plastic adhesive sheet
 contg. powd. magnetic material treated with silane- or
 titanium-type coupling agent)
- IT 442573-50-4P, Dicyandiamide-YD 8125-YDCN 704-YP 50S copolymer
 442573-51-5P, Dicyandiamide-EXA 830LPV-YDCN 704 copolymer
 442633-93-4P, Coponyl N 2574-Coponyl N 3525 copolymer
 442633-94-5P, Bisphenol A-epichlorohydrin-N 670EXP-S/TD 2131-YP 50S
 copolymer
 (plastic adhesive sheet contg. powd. magnetic
 material treated with silane- or titanium-type coupling agent)
- IT 12645-49-7, Manganese zinc ferrite
 (plastic adhesive sheet contg. powd. magnetic
 material treated with silane- or titanium-type coupling agent)
- IT 919-30-2, TSL 8331 2530-83-8, TSL 8350 3388-04-3, KBM
 303 14513-34-9, KBM 502 65460-52-8, KR 41B
 (plastic adhesive sheet contg. powd. magnetic
 material treated with silane- or titanium-type coupling agent)
- IT 27789-14-6, Polybutyral 442633-90-1, Upitite UPA-N 221
 (plastic adhesive sheet contg. powd. magnetic
 material treated with silane- or titanium-type coupling agent)
- IT 106389-78-0, Nickel zinc ferrite
 (powd.; plastic adhesive sheet contg. powd.
 magnetic material treated with silane- or titanium-type coupling
 agent)
- L35 ANSWER 2 OF 13 HCA COPYRIGHT 2003 ACS
 133:253603 Laminated plastic sheets including
 polyester-containing barrier layers and containers therefrom.
 Kanai, Mitsuru; Kurokawa, Hideki; Takahashi, Hideaki; Tsuzuki,
 Mitsunori; Yamamoto, Hiroshi (Dainippon Printing Co., Ltd., Japan).
 Jpn. Kokai Tokkyo Koho JP 2000263727 A2 20000926, 21 pp.
 (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-67764 19990315.
- AB The sheets, esp. suited for salad dressing packages, comprise
 successively laminated layers of nylon films, multilayer inorg.
 oxide thin films, barrier layers comprising resin compns. contg.
 gas- and steam-impermeable polyester (P1)-based vehicles and
 optional multifunctional isocyanates, and heat-sealable resin
 layers. Primers contg. (i) silane coupling agents or (ii) polyester
 resins may exist between the inorg. oxide thin films and the barrier
 layers. The P1 may be adipic acid-ethylene glycol-isophthalic
 acid-terephthalic acid copolymer (I). Packaging bags and containers
 prepd. from the sheets are also claimed. Thus, MXD 6 film was
 successively coated with a silica deposition film, a
 N-.beta.(aminoethyl)-.gamma.-aminopropyltrimethoxysilane
 -contg. polyurethane primer layer, I-based barrier layer, a 2-pot
 polyester-polyurethane-based anchorcoat layer, and polyolefin-based
 laminated heat-sealable layers to give a multilayer sheet showing O
 permeability 0.8 cm³/m²/day (23.degree., RH 90%) and moisture
 permeability 1.5 g/m²/day (40.degree., RH 100%). A salad
 dressing-packed bag prepd. from the sheet showed excellent flavor
 retention.

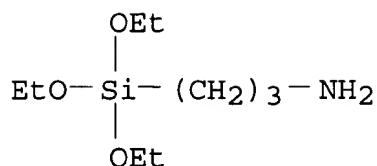
- IC ICM B32B027-34
ICS B32B009-00; B32B027-36; B65D065-40; C23C014-08; C23C016-40
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 17
IT Laminated **plastics**, uses
(**sheets**; nylon-based laminated food packaging sheets
with polyester-contg. barrier layers for salad dressings)
IT 1760-24-3, N-.beta.(Aminoethyl)-.gamma.-
aminopropyltrimethoxysilane 2530-83-8,
.gamma.-Glycidoxypropyltrimethoxysilane 25038-59-9, Poly(ethylene
terephthalate), uses
(primercoats contg.; nylon-based laminated food packaging sheets
with polyester-contg. barrier layers for salad dressings)
- L35 ANSWER 3 OF 13 HCA COPYRIGHT 2003 ACS
133:253578 Laminated **plastic sheets** including
oxygen- and steam-impermeable layers and containers therefrom.
Kanai, Mitsuru; Kurokawa, Hideki; Takahashi, Hideaki; Tsuzuki,
Mitsunori; Yamamoto, Hiroshi (Dainippon Printing Co., Ltd., Japan).
Jpn. Kokai Tokkyo Koho JP 2000263726 A2 20000926, 20 pp.
(Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-67749 19990315.
AB The sheets, esp. useful for seasoning packages, comprise nylon-based
barrier films having (i) barrier layers including O- and
steam-impermeable polyester (P1)-based vehicles on one side and (ii)
laminated layers of inorg. oxide thin films, primer coatings contg.
silane coupling agents or polyesters, and heat-sealable resin layers
on the other side. Packaging bags and containers of the sheets show
excellent flavor retention and O or steam impermeability. The P1
may comprise adipic acid-ethylene glycol-isophthalic
acid-terephthalic acid copolymer (I). Thus, a biaxially-oriented
MXD 6 support film was successively coated with SiO2 layer (by CVD),
a polyurethane compn. contg. N-.beta.-(aminoethyl)-.gamma.-
aminopropyltrimethoxysilane, a polyester-polyurethane-based
anchorcoat, and 2-layered polyolefin heat-sealable layers while
applying I-based coating on the other side of the support film to
give a laminated film showing excellent flavor-barrier property, O
and steam impermeability, and laminate strength.
- IC ICM B32B027-34
ICS B32B009-00; B32B027-36; B65D001-09; B65D030-02; B65D065-40;
C23C014-08; C23C016-40
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 17
IT 1760-24-3, N-.beta.-(Aminoethyl)-.gamma.-
aminopropyltrimethoxysilane 2530-83-8,
.gamma.-Glycidoxypropyltrimethoxysilane
(primer coatings; laminated packaging sheets including
modified-PET-contg. barrier layers and showing good flavor
retention)
- L35 ANSWER 4 OF 13 HCA COPYRIGHT 2003 ACS
133:239154 Laminated **plastic sheets** including
PVA-containing barrier layers and containers therefrom. Kanai,

Mitsuru; Kurokawa, Hideki; Tsuzuki, Mitsunori; Takahashi, Hideaki; Yamamoto, Hiroshi (Dainippon Printing Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000263725 A2 20000926, 22 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-67394 19990312.

- AB The sheets, esp. useful for seasoning packages, comprise nylon-based barrier films having (i) O- and steam-impermeable barrier layers including PVA-type vehicles on one side and (ii) laminated layers of inorg. oxide thin films, primer coatings contg. silane coupling agents or polyesters, and heat-sealable resin layers on the other side. Packaging bags and containers of the sheets show excellent flavor retention and O or steam barrier property. Thus, a biaxially-oriented MXD 6 support film was successively coated with SiO₂ layer (by CVD), a polyurethane compn. contg. N-.beta.-(aminoethyl)-.gamma.-**aminopropyltrimethoxysilane**, a polyester-polyurethane-based anchorcoat, and 2-layered polyolefin heat-sealable layers while applying a 32:68 (mol%) ethylene-vinyl alc. copolymer-based waterborne coating on the other side of the support film to give a laminated film showing excellent flavor retention, O permeability 0.9 cm³/m²/day (23.degree., RH 90%), and moisture permeability 1.0 g/m²/day (40.degree., RH 100%).
- IC ICM B32B027-34
ICS B29C055-12; B32B009-00; B32B027-30; B32B027-36; B65D065-40; B65D081-34; C08J005-18; C08L029-04; C08L077-00; C09D129-04; C09D175-04; C09J129-04; C09J175-04; C23C014-08; C23C016-40
- CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 17
- IT 1760-24-3, N-.beta.-(Aminoethyl)-.gamma.-**aminopropyltrimethoxysilane** 2530-83-8, .gamma.-Glycidoxypropyltrimethoxysilane 25038-59-9, Poly(ethylene terephthalate), uses
(primer coatings; laminated packaging sheets including PVA-contg. barrier layers and showing good flavor retention)
- L35 ANSWER 5 OF 13 HCA COPYRIGHT 2003 ACS
127:208940 Fiber-reinforce **plastic** metal composite **sheets**. Fujii, Mikiya (Nitto Boseki Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 09201907 A2 19970805 Heisei, 4 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-33095 19960129.
- AB To improve adhesion in manuf. of Ti/fiber-reinforced thermoplastic composite sheet, the bonding side of the Ti sheet is coated with a layer of Al which is then coated with a silane coupling agent.
- IT 13822-56-5, .gamma.-**Aminopropyltrimethoxysilane**
(coupling agent; fiber-reinforce **plastic** metal composite **sheets** with improved bonding strength)
- RN 13822-56-5 HCA
CN 1-Propanamine, 3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)



- IC ICM B32B015-08
- CC 56-4 (Nonferrous Metals and Alloys)
- ST titanium fiber reinforcing **plastic** composite **sheet**
- IT Glass fiber fabrics
Polyamides, uses
(fiber-reinforce **plastic** metal composite **sheets**
with improved bonding strength)
- IT 13822-56-5, .gamma.-**Aminopropyltrimethoxysilane**
(coupling agent; fiber-reinforce **plastic** metal
composite **sheets** with improved bonding strength)
- IT 25038-54-4, Nylon 6, uses
(fiber-reinforce **plastic** metal composite **sheets**
with improved bonding strength)
- IT 7429-90-5, Aluminum, uses
(interlayer; fiber-reinforce **plastic** metal composite
sheets with improved bonding strength)
- IT 7440-32-6, Titanium, processes
(**sheet**; fiber-reinforce **plastic** metal
composite **sheets** with improved bonding strength)
- L35 ANSWER 6 OF 13 HCA COPYRIGHT 2003 ACS
- 124:204301 Fiber-reinforced **plastic sheets** for
impact-resistant moldings. Fujii, Mikya; Inoguchi, Hirokazu;
Kawaguchi, Yutaka; Watanabe, Shoichi (Nitto Boseki Co Ltd, Japan).
Jpn. Kokai Tokkyo Koho JP 07329059 A2 19951219 Heisei, 6 pp.
(Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-153118 19940613.
- AB The title sheets, useful for hot-stamping or high-speed compression
molding, are prepd. by treating glass fibers with bundling agents
selected from amine-modified or ethylene oxide-added epoxy resins or
ethylene oxide-added bisphenol A (e.g., diethanolamine-added Epikote
828), forming glass yarns from the treated fibers, weaving the
yarns, rinsing the cloths to bundling agents content <0.25%,
treating the cloths with surface-treating agents (e.g., SZ 6032),
and laminating with thermoplastic resins (e.g., nylon 6 or PBT, by
laminating 13 sheets alternatively with 12 cloths) with pressure and
heat.
- IT 919-30-2, .gamma.-**Aminopropyltriethoxysilane**
(coupling compn. contg.; fiber-reinforced **plastic**
sheets for impact-resistant moldings)
- RN 919-30-2 HCA
- CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



- IC ICM B29B011-16
ICS B29C043-02; C03C025-02; C08J005-08
- ICA B32B017-04; D06M015-55
- ICI B29K101-12, B29K105-08
- CC 38-2 (Plastics Fabrication and Uses)
- IT Coupling agents
Impact-resistant materials
(fiber-reinforced **plastic sheets** for impact-resistant moldings)
- IT Plastics, laminated
(fiber-reinforced **plastic sheets** for impact-resistant moldings)
- IT Polyesters, processes
(laminated with surface-treated cloths; fiber-reinforced **plastic sheets** for impact-resistant moldings)
- IT Glass fibers, processes
(silane-treated cloths; fiber-reinforced **plastic sheets** for impact-resistant moldings)
- IT Plastics, reinforced
(fiber-, fiber-reinforced **plastic sheets** for impact-resistant moldings)
- IT 34937-00-3, SZ 6032
(coupling agents; fiber-reinforced **plastic sheets** for impact-resistant moldings)
- IT 111-42-2D, Diethanolamine, reaction products with epoxy resins
25068-38-6D, Epikote 828, diethanolamine-modified
(coupling compn. contg.; fiber-reinforced **plastic sheets** for impact-resistant moldings)
- IT 919-30-2, .gamma.-Aminopropyltriethoxysilane
(coupling compn. contg.; fiber-reinforced **plastic sheets** for impact-resistant moldings)
- IT 24968-12-5, Poly(butylene terephthalate) 25038-54-4, Nylon 6, processes 26062-94-2, Poly(butylene terephthalate)
(laminated with surface-treated cloths; fiber-reinforced **plastic sheets** for impact-resistant moldings)
- IT 123-95-5, Butyl stearate 138145-01-4
(lubricants, coupling compn. contg.; fiber-reinforced **plastic sheets** for impact-resistant moldings)
- L35 ANSWER 7 OF 13 HCA COPYRIGHT 2003 ACS
124:178342 Interlayer films for lamination of glass sheets. Bando, Akihiko; Shobi, Hajime; Ueda, Naoki (Sekisui Chemical Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 07247140 A2 19950926 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1994-39572

19940310.

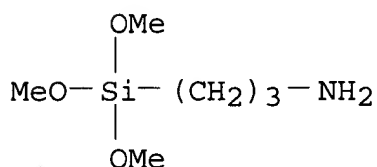
GI For diagram(s), see printed CA Issue.

AB The title films, useful for the manuf. of safety glass, etc., are prepd. from modified ethylene-vinyl acetate copolymers contg. condensation products of polyols contg. 5-12 OH groups and BzH (or derivs.) or calixarenes such as I (n = 4-16) and silane coupling agents with amino, SH, and/or glycidyl groups. A mixt. of phthalic anhydride-modified Evaflex 40 Y.W 100, dibenzylidene sorbitol 0.3, and (MeO)₂SiH(CH₂)₃NHCH₂CH₂NH₂ 0.2 part was roll-kneaded, pressed, and used between layers of glass and poly(ethylene terephthalate) to give a laminate showing transparency 89.1% and good adhesion and moisture resistance.

IT **13822-56-5, 3-Aminopropyltrimethoxysilane**
(coupling agents; in adhesive films contg. modified EVA for lamination of glass **sheets** and **plastic** films)

RN 13822-56-5 HCA

CN 1-Propanamine, 3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)



IC ICM C03C027-12

ICA C08K005-06; C08K005-13; C08K005-54; C08L023-26

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 37, 57

IT Silanes

(coupling agents; in adhesive films contg. modified EVA for lamination of glass **sheets** and **plastic** films)

IT Windows

(lamination of **plastic** and glass **sheets** with adhesive films in manuf. of safety glass for)

IT Lamination

(of glass **sheets** and **plastic** films using adhesive films contg. modified ethylene-vinyl acetate copolymers)

IT Coupling agents

(silanes; in adhesive films contg. modified EVA for lamination of glass **sheets** and **plastic** films)

IT Adhesives

(sheets, contg. modified ethylene-vinyl acetate copolymers for lamination of **plastic** and glass **sheets**)

IT 2530-83-8, 3-Glycidoxypropyltrimethoxysilane **13822-56-5**,

3-Aminopropyltrimethoxysilane 14814-09-6,

3-Mercaptopropyltriethoxysilane 64448-87-9

(coupling agents; in adhesive films contg. modified EVA for lamination of glass **sheets** and **plastic** films)

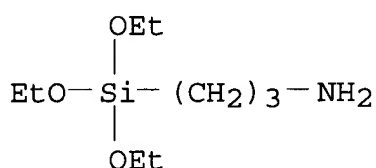
IT 132273-46-2

(in adhesive films contg. modified EVA for lamination of glass **sheets** and **plastic** films)

- IT 50-70-4, D-Sorbitol, uses 87-99-0, Xylitol 100-52-7, Benzaldehyde, uses 19046-64-1 56361-93-4, Dibenzylidene xylitol (in adhesive films contg. modified EVA for lamination of glass **sheets and plastic films**)
- IT 85-44-9D, Phthalic anhydride, reaction products with ethylene-vinyl acetate copolymers 108-30-5D, Succinic anhydride, reaction products with ethylene-vinyl acetate copolymers 108-31-6D, Maleic anhydride, reaction products with ethylene-vinyl acetate copolymers 24937-78-8D, Ultrathene 760, reaction products with maleic and succinic anhydrides 24937-78-8D, Evaflex 40Y.W, reaction products with phthalic anhydrides (in adhesive films for lamination of glass **sheets and plastic films**)
- L35 ANSWER 8 OF 13 HCA COPYRIGHT 2003 ACS
115:257890 Synthetic resin-glass plate laminates. Omura, Hirobumi; Asano, Akira (Sekisui Chemical Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 03169543 A2 19910723 Heisei, 4 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1989-312042 19891129.
- AB The title laminates, with durable adhesion strength and useful as safety glass, contain **plasticized** vinyl resin **sheet** middle layers contg. coupling agents with amino terminal groups and secondary amino groups in mols. Thus, a mixt. of poly(vinyl butyral) 100, triethylene glycol di-2-Et butyrate 40, and N-(.beta.-aminoethyl)-.gamma.-**aminopropyltrimethoxysilane****
* (I) 5 parts was roll milled to give a sheet, which was used to laminate a 100-.mu.m PET film and a 3-mm glass plate to give a safety glass having peel strength 4500, 4260, and 3000 g/cm, as prepd., after 2 and 4 wk at 50.degree. and 100% relative humidity, resp., vs. 4300, 2900, and 1800, resp., for a laminate with the middle layer contg. .gamma.- *****aminopropyltriethoxysilane** instead of I.
- IC ICM B32B017-10
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 57
- IT 1760-24-3, N-(.beta.-Aminoethyl)-.gamma.-**aminopropyltrimethoxysilane** 3069-29-2, N-(.beta.-Aminoethyl)-.gamma.-aminopropylmethyldimethoxysilane 65380-84-9
(coupling agents, plasticized vinyl resins contg., for durable resin-glass laminates)
- L35 ANSWER 9 OF 13 HCA COPYRIGHT 2003 ACS
111:101845 Impact-resistant composite windows, their manufacture, and automotive windows obtained. LeMonte, Burges A.; Quinn, Frederick A. (Quimal International Ltd., USA). Fr. Demande FR 2616426 A1 19881216, 26 pp. (French). CODEN: FRXXBL. APPLICATION: FR 1987-8144 19870611.
- AB In the manuf. of the title windows, comprising an inorg. glass and a polymeric sheet, bonded together with a bonding interlayer, the polymeric sheet is selected from materials with high mech. resistance, e.g., polycarbonates and acrylic polymers, and the

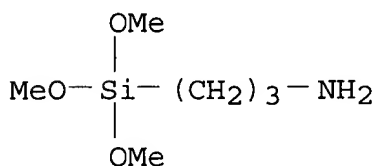
bonding interlayer is selected from those materials having high adhesive strength, e.g., aliph. polyurethanes and crosslinked ethylene-vinyl acetate polymer. The composites are prepd. by (a) prepg. the inorg. glass sheets and pretreating one side of those sheets with a primer, (b) applying a bonding interlayer in the form of a film to the pretreated side of the mineral sheets, (c) prepg. polymeric sheets coated on 1 side with an antiabrasive coating in the form of a film of a hardenable resin, e.g., melamine resin, (d) placing the polymeric sheets on the bonding interlayer with their coated sides facing out, (e) placing the entire assembly in a bag of flexible and watertight material, e.g. a plastic film, (f) evacuating the bag and sealing the bag, (g) placing the bag + contents in an autoclave and heating the assembly under pressure, and (h) retrieving the bag and smoothing the edges of the resulting window. The impact-resistance automotive windows consist of a 1st sheet of tempered glass (thickness 2-3, preferably 2.2 mm), a 1st aliph. polyurethane bonding interlayer film (thickness 0.3 mm), an intermediate polycarbonate sheet (thickness 0.5-1, preferably 0.8 mm), and a 2nd aliph. polyurethane bonding interlayer film (thickness 2-3, preferably 2.8 mm), to a total of .ltoreq.6.4 mm, and resistant to >20 impacts with a hammer at a force of 100-110 J. The manuf. of window glass (total thickness 4.28 mm) is presented. The window had to be hit 32 times in 30 s before a fist-size hole was made.

IT 919-30-2, A1100
 (primer, in impact-resistant composite window manuf.)
 RN 919-30-2 HCA
 CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



IC ICM C03C027-12
 ICS B32B017-10; B32B031-20
 CC 57-1 (Ceramics)
 Section cross-reference(s): 38
 ST multilayer window glass binder plastic; polycarbonate
plastic sheet window; polyacrylate **plastic**
sheet window; acrylic polymer **plastic**
sheet window; aliph polyurethane film binder; ethylene vinyl
 acetate film binder; automotive multilayer window; building
 multilayer safety window; glass **plastic sheet**
 safety window
 IT Windows
 Windshields
 (automotive, safety, multilayer, with glass sheets and
 impact-resistant **plastic sheets**)
 IT Windows

- (safety, multilayer, with glass sheets and impact-resistant plastic sheets, for buildings)
- IT 919-30-2, A1100
(primer, in impact-resistant composite window manuf.)
- L35 ANSWER 10 OF 13 HCA COPYRIGHT 2003 ACS
109:83648 Coating composition for ink-jet recording sheet.
Izumibayashi, Masuji; Yoshida, Masatoshi (Nippon Shokubai Kagaku Kogyo Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 63025087 A2 19880202 Showa, 7 (Japanese). CODEN: JKXXAF. APPLICATION: JP 1986-166667 19860717.
- AB The title coating agent contains (a) aq. dispersion of vinylic polymer having in av. .gtoreq.1 units of $-\text{CH}_2\text{CR}_1[\text{ASiXaR}_2(3-\text{a})]-$ ($\text{R}_1 = \text{H, Me; A} = \text{divalent group; R}_2 = \text{alkyl; X} = \text{halo, alkoxy, acetoxy, and other hydrolyzable group; a} = 1-3$), (b) particles of metal oxide or hydroxide, and (c) optionally, Si compd. having hydrolyzable group bonded to Si. The compn. provides recording sheet resistant to water and light, and has high affinity to plastic sheets. Thus, aq. dispersion of vinylic polymer was prepd. by emulsion polymn. of vinyltrimethoxysilane 5, Me methacrylate 13, and Et acrylate 82 parts. A mixt. of the dispersion 70 (as dry matter), Syloid 620 (silica gel) 55, and .gamma.-glycidoxypropyltrimethoxysilane 10 parts was applied on plain paper or on polyester sheet. Ink-jet printing on the sheets gave durable images that did not easily peel off by crumpling the sheet.
- IT 13822-56-5D, reaction products with Bu acrylate-glycidyl methacrylate-Me methacrylate copolymer
(coating of ink-jet-recording sheet contg. silicon-contg. binder and)
- RN 13822-56-5 HCA
CN 1-Propanamine, 3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)



- IC ICM B41M005-00
ICA B05D003-10; C08J007-12
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 42
- IT 30261-69-9D, reaction products with aminopropyltriethoxysilane*
** 115542-65-9
(coating of ink-jet recording sheet contg., durable image by)
- IT 2530-83-8 9002-98-6, Poly(ethylenimine) ***13822-56-5D, reaction products with Bu acrylate-glycidyl methacrylate-Me methacrylate copolymer
(coating of ink-jet-recording sheet contg. silicon-contg. binder and)

L35 ANSWER 11 OF 13 HCA COPYRIGHT 2003 ACS

100:193160 Adhesives. (Toa Gosei Chemical Industry Co., Ltd., Japan).
Jpn. Kokai Tokkyo Koho JP 58125777 A2 19830726 Showa, 6 pp.
(Japanese). CODEN: JKXXAF. APPLICATION: JP 1982-7448 19820122.

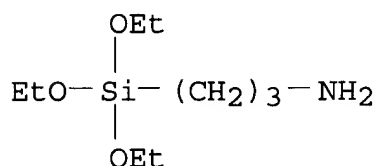
AB An adhesive comprises 100 parts of a polyester having reduced viscosity (.eta.red) (1g/dL m-cresol, 40.degree.) 0.3-0.9 dL/g and melt index (MI, JIS K 6760) 20-300 g/10 min (190.degree.) and 0.1-5 parts amino-substituted organosilane having alkoxy groups. Thus, an adhesive comprising 100 parts PES-110 [80450-27-7] having .eta. 0.7 dL/g, MI at 190.degree. 100 g/10 min, and m.p. 110.degree. and 0.1 part A-1100 (.gamma.-aminopropyltrimethoxysilane) [919-30-2] was used to bond a 3-mm ABS [9003-56-9] sheet to a 3-mm foamed urethane sheet at 0.5 kg/cm² and 110.degree. for 10 s. The laminate had 180.degree. peel strength 1.0 (room temp.) and 0.3 kg/25 mm (90.degree. water vapor) and peeling creep 10 (80.degree.) and 20 mm (90.degree.), compared with 0.6 and 0.2 and 20 and 50, resp., for PES-110 alone.

IT 919-30-2

(polyester adhesives contg.)

RN 919-30-2 HCA

CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



IC C09J003-16

ICA C08K005-54; C08L067-02

CC 38-3 (Plastics Fabrication and Uses)

ST **aminopropyltrimethoxysilane** polyester adhesive; silane
aminopropyl polyester adhesive

IT Adhesives

(polyesters, contg. aminosilanes, for **plastic sheets**)

IT 919-30-2 1760-24-3

(polyester adhesives contg.)

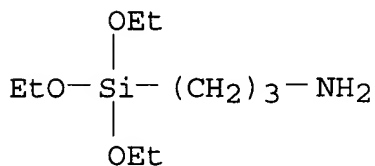
L35 ANSWER 12 OF 13 HCA COPYRIGHT 2003 ACS

87:7104 Adhesives for bonding metals to poly(vinyl chloride) coatings.
Friese, Klaus; Maucksch, Dietrich; Grundke, Horst; Schmidtgen, Wolfgang; Niederwerfer, Ingeborg; Stech, Christa (Ger. Dem. Rep.).
Ger. (East) DD 122552 19761012, 8 pp. (German). CODEN: GEXXA8.
APPLICATION: DD 1975-183915 19750130.

AB A maleic acid-vinyl acetate-vinyl chloride copolymer (I) [9005-09-8], a phenolic resin, hexamethylenetetramine (II) [100-97-0], and H₂N(CH₂)₃Si(OEt)₃ (III) [919-30-2] are used in org. solvents to prep. adhesives for bonding PVC [9002-86-2] sheets to metals. Thus, a 1:12:86 I 15, novolak resin (contg. 6%

II) 3, III 0.05, and BuOAc-cyclohexanone mixt. 82 parts were mixed and used to bond **sheets** of **plasticized** PVC to metals, given adhesion exceeding the cohesive strength of the PVC sheets.

IT 919-30-2
 (adhesives contg., for bonding PVC to metals)
 RN 919-30-2 HCA
 CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



IC C09J003-16
 CC 37-3 (Plastics Fabrication and Uses)
 ST adhesive PVC metal; vinyl chloride copolymer adhesive; maleic copolymer adhesive PVC; phenolic adhesive PVC;
aminopropyltriethoxysilane adhesive PVC
 IT 100-97-0, uses and miscellaneous 919-30-2 9005-09-8
 (adhesives contg., for bonding PVC to metals)

L35 ANSWER 13 OF 13 HCA COPYRIGHT 2003 ACS
 86:31114 Anticlouding, coating, and hardening composite. Yoshida, Masaru; Kaetsu, Isao (Japan Atomic Energy Research Institute, Japan). Jpn. Kokai Tokkyo Koho JP 51110488 19760930 Showa, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1975-35377 19750326.

AB Thermosetting resin coating compns., giving antifoaming films, were prepd. from a hydrolysate of silicone compd. [(HOR1)2NR2S:R3R4R5; R1, R2 = C1-6 alkylene; R3, R4, R5 = C1-6 alkyl, alkoxy], a polyfunctional monomer (optional), a (meth)acryloyl compd. [CH2:CRCO(CH2)nOH; R = H, Me; n = 2-4] (optional), catalysts, and solvents. Thus, 100 parts of a hydrolysate obtained by heating 20 h at 67.degree. a mixt. of N,N-bis(.beta.-hydroxyethyl)-.gamma.-**aminopropyltriethoxysilane** 100, MeOH contg. 5% benzyl alc. 70, and 5% KOH 20 parts was mixed with 0.05 parts Co naphthenate to give a coating compn., which was coated on a **plastic sheet** and heated 3 h at 100.degree. to give an antifogging coating film with good bonding strength.

IC C09K003-18
 CC 42-10 (Coatings, Inks, and Related Products)
 IT Antifogging agents
 (hydroxyamine group-contg. siloxane coating, for **plastic sheet**)

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L43 48431 S L6(2A) (AMINO# OR AMINE#)
 L44 577 S L43(5A)L7
 L45 14 S L44 AND L15
 L46 114 S L44 AND PLASTIC?
 L47 3 S L46 AND (L18 OR L19 OR L20)
 L48 13 S (L45 OR L47) NOT (L34 OR L35)

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L48 ANSWER 1 OF 13 HCA COPYRIGHT 2003 ACS

137:126096 Bonded laminate comprising fluoropolymer layer and thermoplastic layer and fuel hose involving the laminate. Iio, Shinji; Ito, Hiroaki (Tokai Rubber Industries, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002210892 A2 20020731, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-4558 20010112.

AB The laminate consists of a fluoropolymer layer contg. .gtoreq.60 mol% vinylidene fluoride (I) and a thermoplastic layer contg. .gtoreq.4 .times. 10⁻⁵ g-equiv/g terminal amino groups. The fuel hose involves the above laminate wherein the fluoropolymer layer is placed inside. The fuel hose, preferably for automobiles, shows improvement of adhesion between the layers without affecting barrier effect for hydrocarbons owing to I. Thus, I homopolymer and **polyamide 12 (terminal amino group 4** .times. 10⁻⁵ g-equiv/g) were coextruded to give the laminate, which was molded into a hose showing interlayer adhesive strength 22 N/cm and barrier effect for 1:1 mixt. of MePh and isooctane 0.9 mg/m/day.

IC ICM B32B027-30

ICS B32B001-08; C08K003-00; C08L027-12; F16L011-04

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 51

IT Fluoropolymers, uses

Laminated plastics, uses

Polyamides, uses

(**laminate** of fluoropolymer layer and thermoplastic layer for fuel hose with adhesive strength and hydrocarbon barrier effect)

L48 ANSWER 2 OF 13 HCA COPYRIGHT 2003 ACS

136:310657 Compositions based on polyamide-grafted flexible olefin copolymers. Court, Francois; Hert, Marius; Robert, Patrice; Baumert, Martin (Atofina, Fr.). PCT Int. Appl. WO 2002028959 A1 20020411, 44 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (French). CODEN: PIXXD2. APPLICATION: WO 2001-FR3100 20011008. PRIORITY: FR 2000-12787 20001006.

AB The use temp. of flexible olefin polymers is increased by grafting

polyamide chains to the polyolefin chains by either including in the olefin polymer-forming mixt. a monomer that has groups that react with **amine terminal** groups of **polyamide** chains or by grafting the preformed olefin polymer with an unsatd. monomer having groups that react with the **amine terminal** groups of **polyamide** chains. Optionally, the molding compns. based on these graft polymers contain flexible olefin polymers having bending modulus <150 MPa and m.p. 60-100.degree.. These compns. are useful for making adhesives, films, tanks, geomembrane protective fabrics produced by extrusion, calendering, thermoccladding/forming, protective layers for elec. cables, and slush molding materials.

IC ICM C08L023-02
ICS C08L023-08; C08G081-02
CC 37-6 (Plastics Manufacture and Processing)
IT Molded **plastics**, properties
Polymer blends
(compns. based on polyamide-grafted flexible olefin polymers)

L48 ANSWER 3 OF 13 HCA COPYRIGHT 2003 ACS

135:138396 Thermally formable multilayer films and molded products covered with the films. Silagy, David; Texier, Jose Pill; Bussi, Philippe; Bonnet, Anthony (Elf Atochem S. A., Fr.). Jpn. Kokai Tokkyo Koho JP 2001205754 A2 20010731, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-17089 20010125. PRIORITY: FR 2000-973 20000126.

AB The films comprise a protective layer successively laminated with a transparent layer contg. 0-100% fluoropolymers and 0-100% alkyl (meth)acrylate polymers, an **amine-terminated polyamide**-based layer, a polyolefin layer functionally modified with unsatd. carboxylic anhydrides, and sa polyolefin binding layer. Thus, an extrusion laminate of 100/35/75/550-.mu.m 60/40 blend of Kynar 720 [poly(vinylidene fluoride)], Orogas HT 1221 (me methacrylate-methacrylic acid copolymer) contg. 0.6% UV absorber, Ultramid B36F (**amine-terminated polyamide** 6), Bynel 50E561 (acid anhydride-modified polypropylene), and 94/6 blend of Appryl 2050 BN1 (polypropylene) and Sanylene AU Verde A13 GR (master batch) was injection molded with Appryl 3131 MU7 to give a molded product.

IC ICM B32B027-30
ICS B32B027-30
CC 38-3 (Plastics Fabrication and Uses)
ST thermoforming multilayer plastic film injection molding; fluoropolymer alkyl methacrylate polymer laminate film; polyolefin polyamide **laminate plastic** film
IT **Laminated plastic** films
(thermally formable multilayer films for covering molded products)

L48 ANSWER 4 OF 13 HCA COPYRIGHT 2003 ACS

131:287634 Laminated rubber structures with excellent interlayer

adhesion without adhesives. Mutsuda, Mitsuaki; Ozawa, Yoshihide (Daicel Huels, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11286075 A2 19991019 Heisei, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-88839 19980401.

- AB The structures, useful for seismic isolation structures, consist of (A) compns. comprising SBR rubber, natural rubber, EPDM rubber, acid-copolymer. ethylene-propylene rubber (X-EPM), and/or ethylene-acrylic acid (ester) rubbers and (B) poly(phenylene ethers) (PPE) or their compns. Also claimed are laminates of (C) x-EPM and/or acid-copolymer. nitrile rubber and (D) **amino-terminated polyamides** or their compns. Thus, 3 sheets of PPE (Vestron 1900) reinforced with polyalkenylene (Vestenamer) were laminated with 2 SBR rubber sheets alternately and hot-pressed to give a test piece showing excellent interlayer adhesion even after an 8-wk salt-spray test.
- IC ICM B32B025-04
ICS E04H009-02; B32B015-06
- CC 39-15 (Synthetic Elastomers and Natural Rubber)
Section cross-reference(s): 58
- IT Natural rubber, properties
(Defo 1000; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT Styrene-butadiene rubber, properties
(SBR 1500; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT Ethylene-propylene rubber
(acid-contg.; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT Synthetic rubber, properties
(acrylic acid-ethylene; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT Acrylic rubber
Acrylic rubber
Acrylic rubber
Polyolefin rubber
Polyolefin rubber
Polyolefin rubber
Synthetic rubber, properties
Synthetic rubber, properties
Synthetic rubber, properties
(acrylic-ethylene; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT Synthetic rubber, properties
(acrylonitrile-butadiene-methacrylic acid, Nipol 1472; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT Vulcanization
(adhesion; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT EPDM rubber
(ethylene-ethylidenenorbornene-propene, Buna 341; rubber-

- plastic laminates** with good interlayer adhesion without adhesives)
- IT Carbon fibers, uses
Glass fibers, uses
Metallic fibers
Mica-group minerals, uses
Polyalkenamers
(poly(phenylene ethers) contg.; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT Synthetic rubber, uses
(polyoctenamer, EPDM rubber contg., Vestenamer 8012; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT Polyamides, properties
Polyoxyphenylenes
(rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT **Laminated plastics**, properties
(rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT Earthquake
Foundations (buildings)
(seismic isolation structures; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT Adhesion, physical
(vulcanization; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT 9010-79-1
(ethylene-propylene rubber, acid-contg.; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT 24936-74-1, Vestamid X 7094
(neat and glass fiber-reinforced, Vestamid X 7094, Vestamid X 7099; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT 100-42-5D, Styrene, polymers 14807-96-6, Talc, uses
(poly(phenylene ethers) contg.; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT 28702-45-6, Polyoctenamer
(rubber, EPDM rubber contg.; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT 24938-67-8, Poly(2,6-dimethyl-1,4-phenylene) ether 24938-67-8,
Poly[oxy(2,6-dimethyl-1,4-phenylene)] 25134-01-4 26098-55-5
246155-53-3, Vestoran 1900GF20
(rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT 9010-77-9, Acrylic acid-ethylene copolymer 9010-81-5,
Acrylonitrile-butadiene-methacrylic acid copolymer

- (rubber; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- IT 9003-55-8
(styrene-butadiene rubber, SBR 1500; rubber-**plastic laminates** with good interlayer adhesion without adhesives)
- L48 ANSWER 5 OF 13 HCA COPYRIGHT 2003 ACS
131:74628 Thermoplastic polyamide-polyketone laminates. Stoeppelmann, Georg; Hewel, Manfred (EMS-Inventa A.-G., Switz.). Ger. Offen. DE 19757606 A1 19990701, 6 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1997-19757606 19971223.
- AB The title laminates are prepd. by bonding layers of **polyamides [amino-CO₂H end group** ratio (R) >1:1] with layers of linear, alternating CO-olefin copolymers. A 0.3-mm sheet of nylon 12 [m.p. 178.degree., melt index (275.degree., 5 kg) 30 mL/10 min, R 3:1] and a 0.7-mm sheet of CO-C₂H₄-C₃H₆ copolymer (m.p. 225.degree., melt index 13 mL/10 min) were bonded at 230-240.degree. to give a laminate with no fracture in cold impact test (DIN 7337) and bursting pressure 150 bar; vs. 100% fracture and 90 bar, resp., for the polyketone only.
- IC ICM B32B027-34
ICS C08L029-12; C08J007-16; C08J005-00; B29D023-00; B32B027-08
- CC 38-3 (Plastics Fabrication and Uses)
- IT **Laminated plastics**, uses
Polyamides, uses
Polyketones
(thermoplastic polyamide-polyketone laminates)
- L48 ANSWER 6 OF 13 HCA COPYRIGHT 2003 ACS
130:169319 Polyamide-polyolefin blend films for prevention of volatilization of fumigants and soil fumigation using the films. Kuratsuji, Takatoshi; Ishino, Kiyotaka; Basset, Dominique; Bellinger, Marie-Pierre; Echaliier, Bruno (Elf Atochem Japan Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11046660 A2 19990223 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-214231 19970808.
- AB The title films comprise polyamide-polyolefin blends at least partially contg. recycled wastes of the films. Soils are covered with the films during fumigation to prevent volatilization of the fumigants. A compn. contg. 60:30:10 polyamide 6, polypropylene, and ethylene-propylene copolymer maleated and condensed with amine-terminated caprolactam oligomer was blended with 10% pulverized waste film from the compn. and sandwiched between polyethylene films to give a 3-layered film showing MeBr permeability (at 40.degree.) 0.07 g/m²h and tear strength in the machine and transverse directions of 300 and 350 g, resp.
- IC ICM A01M013-00
ICS A01M017-00; A01N025-18; B32B027-32; B32B027-34
- CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 5, 19, 60
- IT Fumigants

Fumigation

Laminated plastic films

Plastic films

Recycling of plastics and rubbers

Soils

Waste plastics

(polyamide/polyolefin blend films contg. waste plastics for prevention of volatilization of fumigants in soil fumigation)

- IT 108-31-6D, Maleic anhydride, reaction products with ethylene-propylene copolymer and **amine-terminated** caprolactam oligomer 9002-88-4, LDPE 9003-07-0, Polypropylene 9010-79-1D, Ethylene-propylene copolymer, maleated, condensation products with **amine-terminated** caprolactam oligomer 25038-54-4, Polyamide 6, uses 25038-54-4D, Polycaprolactam, condensation products with maleated ethylene-propylene copolymer 64652-60-4, Butyl acrylate-ethylene-maleic anhydride copolymer (polyamide/polyolefin blend films contg. waste plastics for prevention of volatilization of fumigants in soil fumigation)

L48 ANSWER 7 OF 13 HCA COPYRIGHT 2003 ACS

129:176686 Photosensitive resin laminate useful for display panel and the like. Taguchi, Yuji; Kawahara, Toshikazu; Motoi, Keiichi; Ariki, Takamitsu (Toyobo Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10207073 A2 19980807 Heisei, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-8817 19970121.

- AB The title laminates comprise (a) support laminated with (b) 0.2-100-.mu.m thick adhesive layers having pencil hardness .gtoreq.3B after immersion in acetone for 24 h and (c) photosensitive resin layers. The adhesive layers do not peel from the supports when the laminates are treated with solvents such as acetone. Thus, 87 parts N,N'-bis(3-aminopropyl)piperazine was polymd. with 500 parts polyethylene glycol and 185 parts hexamethylene diisocyanate to give a NCO-terminated oligomer, 55 parts of which was reacted with 2 parts glycidyl methacrylate to give a methacrylate polymer. Then, the polymer was mixed with 29 parts of a diacrylate (polyethylene glycol diglycidyl ether homopolymer acrylate), N-butylbenzenesulfonamide, hydroquinone monomethyl ether, and benzyl di-Me ketal and film-cast to give a sheet. Alternatively, applying an adhesive compn. contg. 60 parts Vylon RV 200 (polyesters), 12 parts Coronate HK (polyisocyanates), and conventional additives on a phenolic plate and laminating the sheet on the adhesive layer gave a title laminate, which was applied a neg. film, exposed, developed, and applied a pigment to give a test piece which showed pensile hardness 2B on the adhesive surface after immersed in acetone for 24 h.

IC ICM G03F007-11

ICS C09J175-06; G09F007-00

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 74

IT **Laminated plastics**, uses

(photosensitive resin laminate useful for display panels)

- IT 79-41-4DP, ammonium salts with piperazine-contg. and **amino-terminated polyamides**, reaction products with a polyether acrylate 106-91-2DP, reaction products with diisocyanate, polymers with polyether acrylate 87502-04-3DP, Trimethylolpropane triglycidyl ether homopolymer acrylate, polymers with polyamide methacrylates 105009-18-5DP, N-(2-Aminoethyl)piperazine adipate, reaction products with a polyamide and glycidyl methacrylate, salt with methacrylic acid, polymers with polyether acrylate 152726-12-0DP, N,N'-Bis(3-aminopropyl)piperazine-hexamethylene diisocyanate-polyethylene glycol copolymer, reaction products with glycidyl methacrylate, polymers with polyether acrylate 211422-87-6DP, Adipic acid-1,3-bis(aminomethyl)cyclohexane- ϵ -caprolactam block copolymer, reaction products with aminoethylpiperazine adipate, glycidyl methacrylate, and methacrylic acid, polymers with a polyether acrylate 211422-88-7DP, reaction products with glycidyl methacrylate, polymers with trimethylolpropane triglycidyl ether homopolymer acrylate 211519-48-1DP, polymers with polyurethane methacrylate
(photosensitive; photosensitive resin laminate useful for display panels)
- L48 ANSWER 8 OF 13 HCA COPYRIGHT 2003 ACS
128:322606 Gas-barrier transparent polyamide-ionomer laminated films with creep resistance useful for food packaging. Kitada, Ichiro; Matsukura, Yoshihiro (Kureha Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10095086 A2 19980414 Heisei, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-271557 19960920.
- AB Title laminated films comprise at least one layer contg. (a) .gtoreq.1 arom. polyamides selected from polyamide 6/6I, polyamide 6/6T, and polyamide 6I/6T and (b) ethylene-based ionomers (N content 1-7%) partially neutralized with **amino-terminated** compds. or **polyamide**-modified ionomers (N content 1-7%). Thus, a 20:80 Himilan (polyamide-modified ionomer) (I)-Sniamid (polyamide 6/6I) mixt. as outer layer, Kuramiron (polyurethane) as adhesive layer, Krehalon (vinyl chloride-vinylidene chloride copolymer) as intermediate layer, Kuramiron as adhesive layer, and Amilan (aliph. polyamide 612) as inner layer were melt laminated in this order and biaxially oriented to give a 48 μ m-thick film showing creep strain rate (L/T) 16/17%, O₂ permeability 100 cm³/m²-24 h-atm (at 30.degree. and relative humidity 100%), and water vapor permeability 26 g/m²-24 h (at 40.degree. and relative humidity 90%). Sausage packed in a tube prepd. from the above film was boiled at 80.degree. for 2 h showing no bursting, no deformation, and normal surface color of sausage, compared with deformation using Himilan 1601 ionomer instead of I.
- IC ICM B32B027-34
ICS B32B027-16; B32B027-28; B65D065-40; C08L077-10
- CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 17
- IT **Laminated plastics**, uses
(prepn. of creep- and moisture-resistant polyamide-ionomer

laminated films for food packaging)

L48 ANSWER 9 OF 13 HCA COPYRIGHT 2003 ACS

120:9957 Polyamide-modified polyester thermoplastic laminate. Muegge, Joachim; Roeber, Stefan; Jadamus, Hans (Huels A.-G., Germany). Eur. Pat. Appl. EP 542182 A1 19930519, 10 pp. DESIGNATED STATES: R: DE, ES, FR, GB, IT, NL, SE. (German). CODEN: EPXXDW. APPLICATION: EP 1992-119174 19921110. PRIORITY: DE 1991-4137434 19911114; DE 1992-4207125 19920306.

AB Laminates with good chem. resistance and good behavior under tension are prepd. by laminating a layer based on **polyamides** with a certain level of **amino-terminal** groups and a layer of a modified polyester, i.e., a mixt. contg. 60-98 wt.% partially cryst. thermoplastic polyester and 2-40 wt.% epoxy resin. The laminates are resistant to solvents and thermal shock and have good mech. properties, esp. a strong cohesion at the phase boundaries. The laminates are useful as construction materials in the elec., machine, and automobile industries, as foils for food packaging, and as pipes in the automobile industry.

IC ICM B32B027-08

CC 38-3 (Plastics Fabrication and Uses)

IT **Plastics, laminated**

(epoxy resin-polyester blends-polyamides)

L48 ANSWER 10 OF 13 HCA COPYRIGHT 2003 ACS

107:200010 Stretched laminate moldings. Kawasumi, Toshiaki; Urabe, Hiroshi; Kawai, Michio; Miyamoto, Masaaki (Mitsubishi Chemical Industries Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 62193827 A2 19870826 Showa, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1986-33847 19860220.

AB Moldings with low gas permeability, useful as containers for carbonated beverages, comprise **polyamides terminated** with **amino** and carboxyl groups, poly(vinyl alc.), and PET. Thus, 10% nylon 6 modified with octadecylamine and stearic acid (relative viscosity 2.40, terminal CO₂H and amino groups 9 and 68 mequiv/kg, N-alkylamide 87 mol% of substituted carboxyl) and 90% saponid. 38:72EVA were coextruded with PET to give a 90:360 (.mu.) film with O permeability 1.1 .times. 10-12 mL-cm/cm²-s-cm Hg.

IC ICM B32B027-30

ICS B32B027-34; B32B027-36

ICA B29C055-02

ICI B29K067-00, B29K077-00, B29L009-00

CC 38-3 (Plastics Fabrication and Uses)

IT **Plastics, laminated**

(PET-saponid. EVA-polyamides, for bottles for carbonated beverages)

L48 ANSWER 11 OF 13 HCA COPYRIGHT 2003 ACS

99:213799 Adhesives and laminated films.. Herold, Julius; Gruber, Werner; Henke, Guenter (Henkel K.-G.a.A., Fed. Rep. Ger.). Ger. Offen. DE 3205733 A1 19830825, 12 pp. (German). CODEN: GWXXBX.

APPLICATION: DE 1982-3205733 19820218.

AB An epoxy resin prep. from glycidol and an isocyanate-terminated polyether- or polyester-polyurethane is used with an **amino group-terminated** polyether or **polyamide** in the prep. of adhesives for use in the **lamination** of **plastic** films, esp. polyolefin and poly(ethylene terephthalate) (I) [25038-59-9] films. Thus, 0.4 equiv 4,4'-diphenylmethane diisocyanate and 0.20 equiv polyester diol (mol. wt. 2000) prep. from adipic acid, isophthalic acid, hexanediol, and HOCH₂CHMeOH were added to MeCOEt, heated at 55.degree. to give a product contg. 1.7% NCO groups, cooled, and treated with 0.2 equiv glycidol to prep. a resin contg. 0.59% epoxy groups. This resin soln. was mixed with amino group-terminated polyoxypropylene (mol. wt. 400) and coated (3 .mu.-thick) on I film. The film was laminated with a corona-treated polyethylene [9002-88-4] film, giving a laminate with 180.degree. peel strength 4.0 N/15 mL.

IC C09J003-16; C08J005-12; B32B027-06

CC 38-3 (Plastics Fabrication and Uses)

IT 70143-95-2D, reaction products with diisocyanates and glycidol (adhesives, contg. amine hardeners, for **lamination** of **plastic** films)

L48 ANSWER 12 OF 13 HCA COPYRIGHT 2003 ACS

99:141055 Epoxy resin compositions. (Toho Beslon Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 58053914 A2 19830330 Showa, 5 pp.

(Japanese). CODEN: JKXXAF. APPLICATION: JP 1981-153266 19810928.

AB Epoxy resin compns. having excellent adhesive properties and low-temp. curing properties contain >60% bisphenol A-based epoxy resin, reaction products from carboxy-terminated butadiene-acrylonitrile rubber and an epoxy resin, dicyandiamide (I) [461-58-5], and **amino group-terminated** liq. or semisolid **polyamide**. Thus, Hycar CTBN 1300.times.13 100, Epikote 828 [25068-38-6] 30, and Ph3P 0.5 g were heated at 170.degree. for 30 min and mixed with Epikote 828 500, Epikote 834 150, DER 511 [37260-21-2] 250, EPN 1138 [39362-23-7] 100, I 40, 3-(3,4-dichlorophenyl)-1,1-dimethylurea 50, Tohmide 215x [65154-61-2] 40, and Sb203 30 g to give an epoxy compn. The compn. was dissolved in acetone-Me Cellosolve to 50% solids, impregnated into plain woven carbon fiber (200 g/m²) to resin pickup 42%, and dried at 80.degree. for 1 h to give a prepreg with gel time (100.degree.) 14 min. A glass fiber-reinforced plastic honeycomb (HRP-3/16-40) was sandwiched between 2 sheets of the prepreg and pressed at 130.degree./3 kg/cm² for 90 min to give a honeycomb sandwich panel with interlayer shear strength 6.5 and 4.5 kg/mm² at room temp. and 70.degree., resp., and tensile strength 95 kg/cm².

IC C08G059-60

ICA C08J005-24

CC 37-6 (Plastics Manufacture and Processing)

IT Epoxy resins, uses and miscellaneous (carbon fiber composites, for **plastic** honeycomb sandwich **panels**)

- IT Carbon fibers
(epoxy composites, for **plastic** honeycomb sandwich panels)
- IT Epoxy resins, compounds
(reaction products with carboxy-terminated nitrile rubber, carbon fiber composites, for **plastic** honeycomb sandwich panels)
- IT Polyamides, uses and miscellaneous
(amine-terminated, crosslinking agents, for epoxy resins)
- IT Rubber, nitrile, compounds
(carboxy-terminated, reaction products with epoxy resins, carbon fiber composites, for **plastic** honeycomb sandwich panels)
- IT 25068-38-6 25068-38-6D, reaction products with carboxy-terminated nitrile rubber 31305-94-9 37260-21-2 39362-23-7
(carbon fiber composites, for **plastic** honeycomb sandwich panels)
- L48 ANSWER 13 OF 13 HCA COPYRIGHT 2003 ACS
98:63348 Aqueous developable photopolymer compositions containing a terpolymer binder. Pine, Herbert J. (du Pont de Nemours, E. I., and Co., USA). U.S. US 4361640 A 19821130, 8 pp. (English). CODEN: USXXAM. APPLICATION: US 1981-308056 19811002.
- AB Aq. soln.-developable photopolymizable compns. for the prodn. of relief **printing** plates are composed of a monomer having .gtoreq.2 terminal ethylenic groups 22-32, a photoinitiator or initiation system 0.1-5.0, a binder system from the reaction product of a Bu methacrylate-methacrylic acid-Me methacrylate copolymer (65-87), a polyamide resin (5-20), and a vinyl acetate-vinylpyrrolidone copolymer (5-20) 40-80, a thermal polymn. inhibitor 0.03-0.10, and optionally a **plasticizer** .ltoreq.18 and a tertiary amine capable of salt formation with a carboxylic acid .ltoreq.2.0%. Thus, a photopolymerizable compn. was prepd. by addn. of a liq. compn. contg. tetraethylene glycol diacrylate 27.00, Ph3PO4 9.0, 2,2-dimethoxyacetophenone 1.20, and 1,4,4-trimethyl-2,3-diazabicyclo[3.2.2]non-2-ene-N,N'-dioxide 0.06% to a solid compn. contg. a Bu methacrylate-methacrylic acid-Me methacrylate copolymer 45.74, an **amine-terminated polyamide** 10.00, and a vinyl acetate-vinylpyrrolidone copolymer 7.00%. Relief **printing** plates prepd. with this compn. were developed with aq. NaOH and were of good quality.
- IC G03C001-68
NCL 430275000
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- ST **printing** plate relief photopolymerizable compn; water developable relief **printing** plate
- IT Acrylic polymers, uses and miscellaneous
Amines, uses and miscellaneous
Polyamides, uses and miscellaneous
(photopolymerizable compns. contg., aq. soln.-developable, for

relief **printing** plates)
IT **Printing** plates
(relief, aq. soln.-developable photopolymerizable compns. for)
IT 91-65-6 115-86-6 17831-71-9 24650-42-8 25086-89-9
28262-63-7 34122-40-2
(photopolymerizable compns. contg., aq. soln.-developable, for
relief **printing** plates)

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(FILE 'HCA' ENTERED AT 11:40:43 ON 04 MAR 2003)

L49 2 S L44 AND L18
L50 16 S L44 AND L19
L51 2 S L44 AND L20
L52 13 S (L49 OR L50 OR L51) NOT (L34 OR L35 OR L48)

=> d l52 1-13 cbib abs hitstr hitind

L52 ANSWER 1 OF 13 HCA COPYRIGHT 2003 ACS

137:330983 Patterned thin films of polyamidoamine dendrimers formed using microcontact **printing**. Arrington, D.; Curry, M.; Street, S. C. (Department of Chemistry The Center for Materials for Information Technology, University of Alabama, Tuscaloosa, AL, 35487-0209, USA). Langmuir, 18(21), 7788-7791 (English) 2002. CODEN: LANGD5. ISSN: 0743-7463. Publisher: American Chemical Society.

AB Microcontact **printing** (.mu.CP) is a soft lithog. technique used to transfer patterned thin org. films to surfaces with submicrometer resolu. Here, various concns. of fourth-generation NH2-terminated polyamidoamine dendrimers are used as the "ink" in .mu.CP. A patterned monolayer is formed from dil. soln. (1 .mu.mol); however, this structure is not stable under ambient conditions. Increasing the dendrimer concn. (up to 1 mmol) results in stable multilayer structures up to roughly 60 nm in height, as characterized by at. force microscopy. The relationship between dendrimer concn. and layer thickness is explored. PAMAM.

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST microcontact **printing** polyamidoamine dendrimer multilayer film pattern; dendritic polyamide polyamine microcontact **printing** lithog

IT Thickness
(deposition of patterns of fourth-generation NH2-terminated polyamidoamine dendrimer multilayers on silicon wafers by microcontact **printing**)

IT Silicone rubber, uses
(di-Me, stamp; deposition of patterns of fourth-generation NH2-terminated polyamidoamine dendrimer multilayers on silicon wafers by microcontact **printing**)

IT Lithography
(microcontact; deposition of patterns of fourth-generation

- NH₂-terminated polyamidoamine dendrimer multilayers on silicon wafers by microcontact **printing**)
- IT Polyamines
(**polyamide-**, dendrimers, **amino-terminated**; deposition of patterns of fourth-generation NH₂-terminated polyamidoamine dendrimer multilayers on silicon wafers by microcontact **printing**)
- IT Dendritic polymers
(**polyamide**-polyamines, **amino-terminated**; deposition of patterns of fourth-generation NH₂-terminated polyamidoamine dendrimer multilayers on silicon wafers by microcontact **printing**)
- IT **Polyamides**, properties
(polyamine-, dendrimers, **amino-terminated**; deposition of patterns of fourth-generation NH₂-terminated polyamidoamine dendrimer multilayers on silicon wafers by microcontact **printing**)
- IT 26937-01-9D, PAMAM, amino-terminated
(dendritic; deposition of patterns of fourth-generation NH₂-terminated polyamidoamine dendrimer multilayers on silicon wafers by microcontact **printing**)
- IT 7440-21-3, Silicon, processes
(wafer; deposition of patterns of fourth-generation NH₂-terminated polyamidoamine dendrimer multilayers on silicon wafers by microcontact **printing**)
- L52 ANSWER 2 OF 13 HCA COPYRIGHT 2003 ACS
- 136:409060 Solvent-free epoxy resin compositions with excellent adhesion and alkali resistance and method for manufacturing ink-jet **printer** heads using them. Taniuchi, Masahiro; Kunikane, Makoto (Ricoh Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002155129 A2 20020528, 19 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-356969 20001124.
- AB The compns. contain liq. epoxy resins, liq. curing agents, and optionally fillers, curing accelerators, and reactive diluents. A Ni-Fe alloy nozzle plate and Si head body, bonded together with the compn., shows good adhesion after long-term immersion in an alkali ink.
- IC ICM C08G059-20
ICS C08G059-40; C08G059-50; C08K003-00; C08L063-00; C08L101-00
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 37, 38
- ST epoxy adhesive ink jet **printer** head; polyoxyalkylene amine curing epoxy alkali resistance; nickel alloy silicon bonding epoxy adhesive
- IT Epoxy resins, preparation
(amine-crosslinked; solvent-free epoxy resin adhesives with good alkali resistance for manufg. ink-jet **printer** heads)
- IT **Polyamides**, uses
Polyoxyalkylenes, uses
(**amino-terminated**, crosslinking agent;

- solvent-free epoxy resin adhesives with good alkali resistance for manufg. ink-jet **printer** heads)
- IT Amines, reactions
(crosslinking agent; solvent-free epoxy resin adhesives with good alkali resistance for manufg. ink-jet **printer** heads)
- IT Polymers, uses
(particles, filler; solvent-free epoxy resin adhesives with good alkali resistance for manufg. ink-jet **printer** heads)
- IT Adhesives
Ink-jet **printer** heads
(solvent-free epoxy resin adhesives with good alkali resistance for manufg. ink-jet **printer** heads)
- IT 2994-63-0, 4,4'-Hexafluoroisopropylidenediphenol diglycidyl ether
106387-90-0, Epikote YX 310
(amine-crosslinked; solvent-free epoxy resin adhesives with good alkali resistance for manufg. ink-jet **printer** heads)
- IT 25068-38-6, Epikote 828
(cured; solvent-free epoxy resin adhesives with good alkali resistance for manufg. ink-jet **printer** heads)
- IT 60842-32-2, R 972 274686-98-5, Geon F 351
(filler; solvent-free epoxy resin adhesives with good alkali resistance for manufg. ink-jet **printer** heads)
- IT 7440-21-3, Silicon, uses
(head body; solvent-free epoxy resin adhesives with good alkali resistance for manufg. ink-jet **printer** heads)
- IT 11110-36-4
(nozzle plate; solvent-free epoxy resin adhesives with good alkali resistance for manufg. ink-jet **printer** heads)
- IT 68318-44-5P, Epikote 828-Jeffamine D 230 copolymer 111307-30-3P, Epikote 828-Jeffamine T 403 copolymer 429231-12-9P, Adeka ED 503-Epikote 292-Epomate N 001 copolymer
(solvent-free epoxy resin adhesives with good alkali resistance for manufg. ink-jet **printer** heads)
- IT 429230-99-9P, Epikote YX 310-Jeffamine D 230 copolymer
429231-04-9P, Epikote YX 310-Jeffamine EDR 148-Tetrad X copolymer
429231-08-3P, Epikote YX 310-Epomate N 001 copolymer 429678-63-7P, Ancamine LVS-Flep 50 copolymer
(solvent-free epoxy resin adhesives with good alkali resistance for manufg. ink-jet **printer** heads)

L52 ANSWER 3 OF 13 HCA COPYRIGHT 2003 ACS

136:110147 Method for producing transfer sheets. Almog, Yaacov; Brandriss, Sergio; Levi, Amnon (Indigo N.V., Neth.). PCT Int. Appl. WO 2002005036 A1 20020117, 19 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (English). CODEN: PIXXD2. APPLICATION: WO 2000-IL407

20000710.

- AB A method for producing a **thermal transfer printing** sheet includes: **printing** an image, particularly a liq. **toner** image to an photoreceptor; transferring the image to an intermediated transfer member; and using heat and pressure to transfer the image to a transfer sheet which has a substrate, an underlayer and an overlayer.
- IC ICM G03G007-00
ICS G03G015-16; B41M005-035
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
- ST **thermal transfer printing** sheet
- IT **Polyamides**, uses
(**amine-terminated**; overcoat of thermal transfer sheet contg.)
- IT **Thermal-transfer printing** materials
(sheets; method for producing thermal transfer sheet)
- IT 25053-53-6, Nucrel 699
(**toner** for producing image on thermal transfer sheet contg.)
- L52 ANSWER 4 OF 13 HCA COPYRIGHT 2003 ACS
134:347338 Circuit board-mountable DC-working moisture-sensing chips. Kobayashi, Nobuo (TDK Corporation, Japan). Jpn. Kokai Tokkyo Koho JP 2001124719 A2 20010511, 17 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-305535 19991027.
- AB The chips comprise specific moisture-absorbing polymers such as the copolymers of polyether-polyamine and ether-contg. epoxy compd., and elec. conductor particles dispersed in the polymers. Thus, **printing** a paste obtained from ethylene glycol 5, AQ-Nylon P 70 (alc.-sol. **polyamide**) 0.5, Jeffamine D 400 (**amine-terminated** polypropylene glycol) 5.7, Jeffamine D-2000 (polyoxypropylene diamine) 3.8, carbon black 3.6 and Denacol EX 614B (sorbitol polyglycidyl ether) 10.5 parts as grid-shaped patterns on the electrode-**printed** surface of an alumina board and baking gave a moisture-sensing device.
- IC ICM G01N027-12
- CC 76-14 (Electric Phenomena)
- ST moisture sensing device **printing** paste polypropylene ether diamine; sensor moisture polyether diamine paste elec conductive filler
- IT **Printed** circuit boards
Semiconductor sensors
(circuit board-mountable DC-working moisture-sensing chips)
- L52 ANSWER 5 OF 13 HCA COPYRIGHT 2003 ACS
134:214956 Photosensitive polymer composition for letterpress **printing** plate. Taguchi, Yuji; Takahashi, Satoshi; Motoi, Keiichi; Ogi, Koji; Minamimura, Kimiko; Tomita, Akira (Toyobo Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001064307 A2 20010313, 4 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-238545

19990825.

- AB The compn. contains a sol. synthetic polymer, a photopolymn. initiator, and a photopolymerizable unsatd. compd. prepd. by ring opening addn. reaction of a polyhydric alc. polyglycidyl ether and methacrylic acid (I) and acrylic acid wherein reaction ratio of I is 25-75 mol%. The compn. with high photosensitivity provides a relief pattern with high hardness for letterpress **printing** plate.
- IC ICM C08F002-48
ICS C08F002-44; C08F291-00; G03F007-027
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
- ST photosensitive polymer compn letterpress **printing** plate;
sensitivity photocurable polymer hardness **printing** plate;
polyol polyglycidyl ether acrylic methacrylic acid
- IT Polyoxyalkylenes, preparation
(diamino-terminated, polymer with caprolactam and adipic acid-hexamethylenediamine copolymer; photosensitive compn. contg. polyol polyglycidyl ether (meth)acrylate for letterpress **printing** plate with high hardness)
- IT **Printing** plates
(letterpress; photosensitive compn. contg. polyol polyglycidyl ether (meth)acrylate for letterpress **printing** plate with high hardness)
- IT Polyamides, uses
(photosensitive compn. contg. polyol polyglycidyl ether (meth)acrylate for letterpress **printing** plate with high hardness)
- IT Polyamides, preparation
(polymer with diamino-terminated polyethylene glycol and caprolactam; photosensitive compn. contg. polyol polyglycidyl ether (meth)acrylate for letterpress **printing** plate with high hardness)
- IT 105-60-2DP, .epsilon.-Caprolactam, polymer with **amino-terminated** polyethylene glycol and **polyamide**
107-13-1DP, Acrylonitrile, reaction product with polyethylene glycol, hydrogenated, polymer with caprolactam and polyamide
25322-68-3DP, Polyethylene glycol, diamino-terminated, polymer with caprolactam and adipic acid-hexamethylenediamine copolymer
32131-17-2DP, Nylon 66, polymer with diamino-terminated polyethylene glycol and caprolactam 62732-28-9P 72388-07-9P 129152-76-7P,
Adipic acid-1,3-bis(aminomethyl)cyclohexane-N,N'-bisaminopropylpiperazine-.epsilon.-caprolactam copolymer
329038-86-0P, Adipic acid-N,N'-bis(3-aminopropyl)piperazine-hexamethylene diisocyanate-2-methylpentamethylenediamine-polyethylene glycol copolymer
(photosensitive compn. contg. polyol polyglycidyl ether (meth)acrylate for letterpress **printing** plate with high hardness)

Fujimaru, Koichi; Goto, Kazuki; Kawamura, Ken (Toray Industries, Inc., Japan). Jpn. Kokai Tokkyo Koho JP 11268436 A2 19991005 Heisei, 24 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-70294 19980319.

- AB In the title plate having a primer layer, a heat-sensitive layer, and a silicone rubber layer formed in this order on a substrate, the primer layer has tensile properties (1) initial elasticity 5-100 kgf/mm², and preferably, (2) 10% stress 0.05-5.0 kgf/mm² and (3) breaking extension .gtoreq.10%. The plate has high **printability**.
- IC ICM B41N001-14
ICS G03F007-00
- CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 39
- IT Urethane rubber, properties
(adipic acid-butanediol-diphenylmethane diisocyanate, Miractran P 22S, crosslinked; direct imaging-type waterless lithog. original plate having primer layer with specified tensile property for **printability**)
- IT Polyoxyalkylenes, properties
(**amino-terminated**, salts with adipic acid, **polyamide** rubber; direct imaging-type waterless lithog. original plate having primer layer with specified tensile property for **printability**)
- IT Lithographic plates
(direct imaging-type waterless lithog. original plate having primer layer with specified tensile property for **printability**)
- IT Polyester rubber
(direct imaging-type waterless lithog. original plate having primer layer with specified tensile property for **printability**)
- IT Polyurethanes, uses
Polyurethanes, uses
Polyurethanes, uses
(epoxy-phenolic-, crosslinking agent; direct imaging-type waterless lithog. original plate having primer layer with specified tensile property for **printability**)
- IT Phenolic resins, uses
Phenolic resins, uses
Phenolic resins, uses
(epoxy-polyurethane-, crosslinking agent; direct imaging-type waterless lithog. original plate having primer layer with specified tensile property for **printability**)
- IT Epoxy resins, uses
Epoxy resins, uses
Epoxy resins, uses
(phenolic-polyurethane-, crosslinking agent; direct imaging-type waterless lithog. original plate having primer layer with specified tensile property for **printability**)
- IT Synthetic rubber, properties

- (polyamide; direct imaging-type waterless lithog. original plate having primer layer with specified tensile property for **printability**)
- IT Phenolic resins, properties
(resol; direct imaging-type waterless lithog. original plate having primer layer with specified tensile property for **printability**)
- IT 172451-68-2, Sumilac PC 1
(crosslinked; direct imaging-type waterless lithog. original plate having primer layer with specified tensile property for **printability**)
- IT 101-68-8 26471-62-5D, TDI, oxime-blocked 77908-07-7, SJ 9372 83764-77-6, Takenate B 830
(crosslinking agent; direct imaging-type waterless lithog. original plate having primer layer with specified tensile property for **printability**)
- IT 9070-36-4P, p-Diazodiphenylamine sulfate-paraformaldehyde copolymer
(direct imaging-type waterless lithog. original plate having primer layer with specified tensile property for **printability**)
- IT 105-60-2D, .epsilon.-Caprolactam, polyamide rubber, properties 124-04-9D, Adipic acid, salts with polyethylene glycol, polyamide rubber 9003-17-2D, Polybutadiene, epoxidized 15511-81-6D, Hexamethylene diamine adipate, polyamide rubber 25322-68-3D, Polyethylene glycol, **amino-terminated**, salts with adipic acid, **polyamide** rubber 26355-01-1, 2-Hydroxyethyl methacrylate-methyl methacrylate copolymer 108563-16-2, Sanprene LQ-T 1331 149983-90-4, Denalex R 45EPI
(direct imaging-type waterless lithog. original plate having primer layer with specified tensile property for **printability**)
- IT 9003-27-4, Poly(2-methylpropene) 24937-05-1, Adipic acid-ethylene glycol copolymer, sru 24938-37-2, Adipic acid-ethylene glycol copolymer 29320-53-4, Decyl methacrylate homopolymer 30583-56-3, Poly(4-octylstyrene) 72058-58-3, Adipic acid-1,6-hexanediol-isophorone diisocyanate-neopentyl glycol copolymer
(rubber; direct imaging-type waterless lithog. original plate having primer layer with specified tensile property for **printability**)
- L52 ANSWER 7 OF 13 HCA COPYRIGHT 2003 ACS
- 114:103906 Hot-melt adhesives for waterproofed textiles. Suzumura, Hitoshi; Sato, Tetsuo; Ito, Tomiji (Nippon Synthetic Chemical Industry Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 02225581 A2 19900907 Heisei, 7 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1989-43811 19890226.
- AB The adhesives comprise 100 parts polyesters, polyester-polyamides, and/or **polyamides** and 0.05-10 parts **amino-terminated** siloxanes. Thus, terephthalic acid 0.6, adipic acid 0.4, 1,4-butanediol 0.8, and ethylene glycol 0.75 mol were stirred at 190-200.degree. for 4 h and treated with 0.6 mol .epsilon.-caprolactam for 2 h at normal pressure and for 1 h at

250.degree./0.3-0.5 mm to give a polyester-polyamide, 100 parts of which was treated with 0.8 part oxazoline at 180.degree. for 1 h to give a polymer with acid value 0.8 KOH mg/g. Then, 100 parts of the polymer and 2.0 parts aminopropyl-terminated di-Me siloxane (I, av. mol. wt. 900) were dispersed in hexane, then vacuum-dried to give a powd. hot-melt adhesive. A cotton interlining cloth dot-**printed** with the adhesive was pressed with a silicone waterproofed cotton fabric at 120-160.degree. and 300 g/cm² to give a laminate with peel strength 230-280 g/m², vs. 0-30 for a control prepd. without I.

IC ICM C09J167-02
ICS C09J177-12
ICI C09J167-02, C09J183-06
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 40
IT Crosslinking agents
(**amino-terminated** silicones, for
polyamides or polyesters or polyamide-polyesters, for
hot-melt adhesives)

L52 ANSWER 8 OF 13 HCA COPYRIGHT 2003 ACS

82:58927 Hydrophilic resin. Kimura, Tadashi; Kobayashi, Shigekazu; Fukabori, Naoyuki; Nakamoto, Hideo (Mitsubishi Rayon Co., Ltd.). Jpn. Tokkyo Koho JP 49018478 B4 19740510 Showa, 4 pp. (Japanese). CODEN: JAXXAD. APPLICATION: JP 1970-46915 19700602.

AB Hydrophilic resin compns., useful for manufg. hydrophilic films, are prepd. by reaction of one or more of methacrylic acid chloride and a vinyl monomer contg. epoxy group with one or more of **amine end groups**-contg. compds., prepd. from a **polyamide** contg. **amino end groups**, and a diamine contg. .gtoreq.3 ether linkages. Thus, 416 parts poly(ether diamine), prepd. from polypropylene glycol and acrylonitrile, and 250 parts poly(ether dicarboxylic acid), prepd. from polypropylene glycol and succinic anhydride, were heated 7 hr at 180.degree. to give a **polyamide** contg. **amino end groups**, which was mixed with 105 parts methacrylic acid chloride and 10 parts dimethylaminoethyl methacrylate, and heated 1 hr at 100.degree. to give a compn. contg. vinyl end groups. The compn. was coated (10 .mu.) on a polyethylene film, and irradiated 2.5 sec with electron beams (dose rate 2 MR/sec) to give a hydrophilic film with good **printing** properties.

IC C08G; C08F
CC 36-3 (Plastics Manufacture and Processing)

L52 ANSWER 9 OF 13 HCA COPYRIGHT 2003 ACS

81:6822 Measurement of heat of adsorption of acids on polyamide by means of flow method. Kimura, Mitsuo; Taniguchi, Tetsuo; Shimizu, Toru (Fukui Univ., Fukui, Japan). Fukui Daigaku Kogakubu Kenkyu Hokoku, 21(1), 173-9 (Japanese) 1973. CODEN: FDKHAD. ISSN: 0429-8373.

AB Heats of adsorption of HCl, HBr, and HI on four kinds of **polyamide** powders contg. different amts. of **amino**

end groups were measured by applying an automatic **recording** liquid chromatography app. of thermal detection type as a flow type microcalorimeter. The heat of adsorption (-.DELTA.H) was obtained from total peak area and adsorption amt. Values of heat of adsorption at satd. adsorption for 4 polyamidesamples, obtained by extrapolating the plots of -.DELTA.H versus .THETA.(equil. amt. of adsorption/satd. amt. of adsorption) to .THETA. = 1, showed good agreement with each other. The values of -.DELTA.H at satd. adsorption for HCl, HBr and HI at 30, 40 and 50.degree. were obtained. It was suggested that the differences in these valuesare brought about by differences in the heat of adsorption of anion to **amino end groups** in **polyamide**.

CC 69-1 (Thermodynamics, Thermochemistry, and Thermal Properties)

L52 ANSWER 10 OF 13 HCA COPYRIGHT 2003 ACS

77:127336 Measurement of adsorption by a flow method. 3. Measurement of heat of adsorption of inorganic acids on nylon by a flow method. Kimura, Mitsuo; Takahashi, Tetsuo; Taniguchi, Tetsuo; Shimizu, Toru (Fac. Eng., Fukui Univ., Fukui, Japan). Sen'i Gakkaishi, 28(7), 265-71 (Japanese) 1972. CODEN: SENGA5. ISSN: 0037-9875.

AB The heat of adsorption of mineral acids, such as hydrogen chloride [7647-01-0], hydrogen bromide [10035-10-6], and hydrogen iodide [10034-85-2], on **polyamide** powders having various amts. of **amino end groups** was measured with a thermal detection-type automatic **recording** liq. chromatograph. Obsd. values were corrected by the ratio of adsorption amts. on equil. and contact time in the flow method. Corrected values (-.DELTA.Hc0) were plotted against .THETA. (-[H]f/[S]f) and those at satd. adsorption (-.DELTA.Hc..THETA.=I0) were obtained by extrapolation to .THETA. = 1. Values of -.DELTA.Hc..THETA.=I0 for HCl, HBr, and HI increased with increasing temp. (30-50.deg.), and were 8.2 and 8.9 for HCl at 30 and 40.deg., resp., 11.3 for HBr at 40.deg., and 13.5 kcal/mole for HI at 40.deg.. The differences between the acids depended on the differences of the heat of adsorption of anions, Cl-, Br-, and I-, to protonated **amino end group**, -NH3+, on the **polyamide**.

CC 36-5 (Plastics Manufacture and Processing)

L52 ANSWER 11 OF 13 HCA COPYRIGHT 2003 ACS

74:54982 New possibilities for producing multicolor effects on polyamide fibers. Fruenknecht, J.; Schwer, D. (Sandoz A.-G., Basel, Switz.). Textilveredlung, 5(12), 912-21 (German) 1970. CODEN: TXLVAE. ISSN: 0040-5310.

AB By the use of a resist agent, Sandospace R (I) (which reacts with **amino end groups** and changes the affinity of **polyamide** fibers for acid dyes and cationic dyes), it is possible to obtain multicolor dyeing, space dyeing, and other special effects by the exhaust method, in **printing**, or by impregnation with subsequent steam fixation. The reactive group of I reacts rapidly and irreversibly with amino groups under

weakly acid or neutral conditions, and the sulfo group permits dyeing with basic dyes.

CC 39 (Textiles)

L52 ANSWER 12 OF 13 HCA COPYRIGHT 2003 ACS

65:57672 Original Reference No. 65:10784b-d **Printing** roller covers. (S.O.R.A.G. Societe de Rouleaux pour Arts Graphiques). BE 655827 19650316, 7 pp. (Unavailable). APPLICATION: BE 19641116.

AB The roller consists of a metallic, cylindrical core to which is cemented a seamless preformed rubber-cotton laminate. The covering is prepd. by drawing a length of knit cotton tubing over a steel mandrel of the same dimensions as the roll core, coating the fabric with a synthetic rubber cement, and then drawing over it a length of extruded rubber tubing. The assembly is then wrapped and vulcanized, e.g. in a steam autoclave, after which the covering is removed from the mandrel. The covering can be applied immediately to the metallic core, or it can be stored for future use. Thus, to replace an old roller covering, after removal of the latter the surface of the core is cleaned, preferably by sandpapering. The cotton lining of the covering is satd. with a suitable adhesive, e.g. a 2-part mixt. of (1) a liquid diepoxide resin 3000, MeCOEt 250, and PhMe 250 parts; and (2) an **amine-terminated polyamide** resin 2500, tetraethylenepentamine 150, a tertiary amine catalyst 60, PhMe 400, and MeCOEt 400 parts. The covering is stretched over the core while the adhesive is still moist, and allowed to set overnight or until a firm and tight bond to the metal surface is formed. After this, the cover resists slip, deformation, or displacement from the core.

CC 49 (Rubber and Other Elastomers)

IT Epoxy resins

(adhesives from **amines**, NH₂ group-terminated **polyamides** and, for cotton-urethan rubber laminates for **printing** roller covers)

IT Amines

(adhesives from **amino** group-terminated **polyamides**, epoxy resins and tertiary, for cotton-urethan rubber laminates for **printing** roller covers)

IT Laminated products

(from cotton and urethan rubber, **printing** roller covers from)

IT Cotton

(laminates with urethan rubber, for **printing** roller covers)

IT Amides

(**poly-**, **amino** group-terminated, adhesives from **amines**, epoxy resins and, for cotton-urethan rubber laminates for **printing** roller covers)

IT **Printing**

(roller covers for, **amino** group-terminated **polyamide** -epoxy resin adhesives and cotton-urethan rubber laminates for)

- IT Rubber, substitute and synthetic
(urethan polymers as, laminates with cotton, for **printing**
roller covers)
- IT 112-57-2, Tetraethylenepentamine
(adhesives from **amines**, NH2 group-**terminated**
polyamides, epoxy resins and, for cotton-urethan rubber
laminates for **printing** roller covers)
- L52 ANSWER 13 OF 13 HCA COPYRIGHT 2003 ACS
57:50176 Original Reference No. 57:10060g-h Potentiometric
determination of **amino** and carboxyl **end**
groups in **polyamide** fibers with a
recording automatic titrator. Wolf, S.; Mobus, B. (Deut.
Metrohm, Echterdingen, Germany). Z. Anal. Chem., 186, 194-201
(Unavailable) 1962.
- AB To det. the COOH, the polyamide fiber is dissolved in propargyl alc.
and titrated with Et4NOH in EtOH. To det. NH2, the fiber is
dissolved in 2: 1 m-cresol-iso-PrOH and titrated with HClO4 in EtOH.
The electrodes used were W-Ag/AgCl in EtOH satd. with LiCl.
- CC 48 (Textiles)

=> d 137 1-26 ti

- L37 ANSWER 1 OF 26 HCA COPYRIGHT 2003 ACS
TI Glass cloth having improved adhesion with impregnating resins and
prepregs thereof
- L37 ANSWER 2 OF 26 HCA COPYRIGHT 2003 ACS
TI **Laminated plastic** films and their use as food
packaging materials
- L37 ANSWER 3 OF 26 HCA COPYRIGHT 2003 ACS
TI Epoxysilane-based binders for glass fiber nonwoven fabrics and their
heat-resistant glass fiber-reinforced thermosetting plastics
- L37 ANSWER 4 OF 26 HCA COPYRIGHT 2003 ACS
TI Transparent, moisture-resistant, and gas-impermeable **plastic**
substrate and their gas-impermeable films with good
printability
- L37 ANSWER 5 OF 26 HCA COPYRIGHT 2003 ACS
TI Epoxy resin compositions for interposers and prepregs and
copper-clad laminates using them with excellent solder resistance
and reduced warpage
- L37 ANSWER 6 OF 26 HCA COPYRIGHT 2003 ACS
TI Halogen-free epoxy resin compositions with good fire and heat
resistance and dimensional stability and their prepregs for
copper-clad laminates
- L37 ANSWER 7 OF 26 HCA COPYRIGHT 2003 ACS

- TI Epoxy resin compositions with high heat resistance and low thermal expansion and absorbcency for prepregs and copper-clad laminates
- L37 ANSWER 8 OF 26 HCA COPYRIGHT 2003 ACS
- TI Silane coupler-treated silica-filled epoxy resin composition for preparation of heat-resistant prepregs with copper-clad laminate application
- L37 ANSWER 9 OF 26 HCA COPYRIGHT 2003 ACS
- TI Laminate comprising thermosetting resin and inorganic filler for **printed** circuit boards
- L37 ANSWER 10 OF 26 HCA COPYRIGHT 2003 ACS
- TI Fireproofing epoxy resin compositions, prepregs, metal-clad laminates, and **printed** circuit boards using them
- L37 ANSWER 11 OF 26 HCA COPYRIGHT 2003 ACS
- TI Epoxy resin composition, prepreg, and multilayer **printed** -wiring board
- L37 ANSWER 12 OF 26 HCA COPYRIGHT 2003 ACS
- TI Transparent multilayer **plastic laminate** and its use in container for packaging
- L37 ANSWER 13 OF 26 HCA COPYRIGHT 2003 ACS
- TI Epoxy resin adhesive compositions for semiconductor devices and adhesive sheets and reinforcements therefrom
- L37 ANSWER 14 OF 26 HCA COPYRIGHT 2003 ACS
- TI Anisotropically electrically conductive films
- L37 ANSWER 15 OF 26 HCA COPYRIGHT 2003 ACS
- TI Heat-resistant resin film-polyimide laminates with excellent electrical properties
- L37 ANSWER 16 OF 26 HCA COPYRIGHT 2003 ACS
- TI Flexible epoxy resin adhesive sheets for high-density semiconductor devices
- L37 ANSWER 17 OF 26 HCA COPYRIGHT 2003 ACS
- TI Glass fiber **substrates** for reinforced **plastic laminates** having good soldering heat resistance
- L37 ANSWER 18 OF 26 HCA COPYRIGHT 2003 ACS
- TI Poly(arylene sulfide)-based optical pick-up parts
- L37 ANSWER 19 OF 26 HCA COPYRIGHT 2003 ACS
- TI **Printable** laminates and their manufacture
- L37 ANSWER 20 OF 26 HCA COPYRIGHT 2003 ACS
- TI Formation of silica film on **plastic substrate** by liquid phase deposition method

L37 ANSWER 21 OF 26 HCA COPYRIGHT 2003 ACS
TI Photocurable tetramethylxylene diisocyanate-based polyurethane poly(meth)acrylate adhesives and their use in laminates manufacture

L37 ANSWER 22 OF 26 HCA COPYRIGHT 2003 ACS
TI **Laminating plastic** film on **printing** paper having window opening

L37 ANSWER 23 OF 26 HCA COPYRIGHT 2003 ACS
TI Method for forming copper-clad aluminum boards

L37 ANSWER 24 OF 26 HCA COPYRIGHT 2003 ACS
TI Modified polyethylene for lamination with epoxy resin composites

L37 ANSWER 25 OF 26 HCA COPYRIGHT 2003 ACS
TI Copper-clad laminates

L37 ANSWER 26 OF 26 HCA COPYRIGHT 2003 ACS
TI Use of a silane coating to bond copper to plastic in making a **printed** circuit

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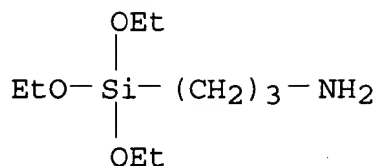
L37 ANSWER 2 OF 26 HCA COPYRIGHT 2003 ACS
137:218072 **Laminated plastic** films and their use as food packaging materials. Tsuyuki, Yuriko; Fukushima, Yoichi; Fukaya, Satoshi; Hagio, Yumiko (Kyodo Printing Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002254578 A2 20020911, 13 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-57544 20010302.

AB The laminates for packaging materials comprise substrates successively laminated with vinyl alc. polymer-contg. gas-barrier layers and **printing** layers. Thus, a compn. contg. 100 g 5% Poval 105 soln. and 2.5 g .gamma.-**aminopropyltriethoxysilane** was applied on a PET film at 65 m/min and dried to give a gas barrier-layer, which was then gravure-**printed** with food packaging inks and laminated with a polyurethane adhesive to give a laminated packaging film with total residual solvent 0.4 mg/m² and O permeability 1.2 mL/m²-atm.

IT **919-30-2DP**, .gamma.-**Aminopropyltriethoxysilane**, reaction products with PVA and ethylene glycol diglycidyl ether **13822-56-5DP**, .gamma.-**Aminopropyltrimethoxysilane**, reaction products with PVA and ethylene glycol diglycidyl ether (gas-barrier layer; gas-barrier **laminated plastic** films for food packaging materials)

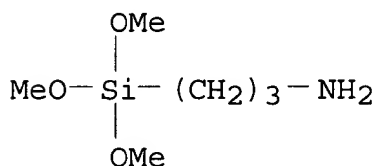
RN 919-30-2 HCA

CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



RN 13822-56-5 HCA

CN 1-Propanamine, 3-(trimethoxysilyl)- (9CI) (CA INDEX NAME)



IC ICM B32B027-30

ICS B65D065-40

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 17, 42

ST **laminate plastic** film food packaging gas

barrier; vinyl alc polymer gas barrier coating packaging film

IT Packaging materials

(films, gas-impermeable; gas-barrier **laminated plastic** films for food packaging materials)

IT Food packaging materials

Laminated plastic films(gas-barrier **laminated plastic** films for food packaging materials)

IT Coating materials

(gas-impermeable, vinyl alc. polymer-based; gas-barrier **laminated plastic** films for food packaging materials)

IT Polyesters, uses

(substrate; gas-barrier **laminated plastic** films for food packaging materials)

IT Polyesters, uses

Polyolefins

(substrates; gas-barrier **laminated plastic** films for food packaging materials)IT 919-30-2DP, .gamma.-**Aminopropyltriethoxysilane**,

reaction products with PVA and ethylene glycol diglycidyl ether

2224-15-9DP, Ethylene glycol diglycidyl ether, reaction products

with PVA and **aminopropyltriethoxysilane** 9002-89-5DP,

Poval 105, reaction products with .gamma.-

aminopropyltriethoxysilane and optionally ethylene glycol diglycidyl ether 13822-56-5DP, .gamma.-**Aminopropyltrimethoxysilane**, reaction products with PVA and ethylene glycol diglycidyl ether 52234-82-9DP, Chemitite PZ 33,reaction products with PVA and **aminopropyltriethoxysilane**

- 56900-02-8DP, reaction products with PVA and **aminopropyltriethoxysilane** 111214-41-6DP, Poval KM 118, reaction products with .gamma.-**aminopropyltriethoxysilane** and optionally ethylene glycol diglycidyl ether (gas-barrier layer; gas-barrier **laminated plastic** films for food packaging materials)
- IT 9003-07-0, Polypropylene 25038-59-9, Poly(ethylene terephthalate), uses (substrate; gas-barrier **laminated plastic** films for food packaging materials)
- L37 ANSWER 4 OF 26 HCA COPYRIGHT 2003 ACS
- 136:310865 Transparent, moisture-resistant, and gas-impermeable **plastic substrate** and their gas-impermeable films with good **printability**. Hayashi, Kenji; Kitahara, Satori (Toppan Printing Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002113826 A2 20020416, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-307348 20001006.
- AB The substrates useful for packaging films contain polyolefins [surface roughness max. height (Ry) <1.40 .mu.m; 10 point av. roughness (Rz) <0.80 .mu.m] having gas-impermeable coatings on .gtoreq.1 side. Thus, P 2102 (biaxially stretched polypropylene film) was coated with an anchor coat from 6080NT (polymethyl methacrylate-based polyol), Et acetate, and Coronate L (isocyanate compd.) and coated with a gas-impermeable coating contg. Li silicates, Sila-Ace S 320 [N-(2-aminoethyl)-3-**aminopropyltrimethoxysilane**], and R 2105 (silane-modified PVA) to give a transparent laminated film showing good O impermeability.
- IC ICM B32B027-32
ICS B32B009-00; C08J007-04; C08L101-00
- CC 38-3 (Plastics Fabrication and Uses)
- ST gas impermeable laminated film transparent polyolefin; moisture resistant polypropylene gas impermeable film; **printability** lithium silicate polypropylene silane PVA
- IT Polyvinyl acetals (acetoacetals, KS 1, polymers with isocyanate; transparent, moisture-resistant, and gas-impermeable **plastic substrate** and their gas-impermeable films with good **printability**)
- IT Polyurethanes, uses (acrylic, anchor coat; transparent, moisture-resistant, and gas-impermeable **plastic substrate** and their gas-impermeable films with good **printability**)
- IT Packaging materials (films; transparent, moisture-resistant, and gas-impermeable **plastic substrate** and their gas-impermeable films with good **printability**)
- IT Coating materials (gas-impermeable; transparent, moisture-resistant, and gas-impermeable **plastic substrate** and their gas-impermeable films with good **printability**)

- IT **Laminated plastic films**
Water-resistant materials
(transparent, moisture-resistant, and gas-impermeable **plastic substrate** and their gas-impermeable films with good **printability**)
- IT Carbohydrates, uses
Polyolefins
(transparent, moisture-resistant, and gas-impermeable **plastic substrate** and their gas-impermeable films with good **printability**)
- IT 9003-07-0, Polypropylene
(PF 20; transparent, moisture-resistant, and gas-impermeable **plastic substrate** and their gas-impermeable films with good **printability**)
- IT 1760-24-3, Sila-Ace S 320
(Sila-Ace S 320; transparent, moisture-resistant, and gas-impermeable **plastic substrate** and their gas-impermeable films with good **printability**)
- IT 338766-70-4P
(anchor coat; transparent, moisture-resistant, and gas-impermeable **plastic substrate** and their gas-impermeable films with good **printability**)
- IT 9002-89-5, Polyvinyl alcohol 12627-14-4, Lithium silicate 104782-64-1D, D 204EA, reaction products with polyvinyl acetal 248251-91-4, R 2105
(transparent, moisture-resistant, and gas-impermeable **plastic substrate** and their gas-impermeable films with good **printability**)
- L37 ANSWER 12 OF 26 HCA COPYRIGHT 2003 ACS
134:179591 Transparent multilayer **plastic laminate**
and its use in container for packaging. Yamamoto, Hiroshi (Dainippon Printing Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001047546 A2 20010220, 18 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-220835 19990804.
- AB The laminate with high O and vapor impermeability, impact resistance, processability, strength, etc., consists of (a) a flexible **plastic substrate**, (b) an inorg. oxide film, (c) a coating layer contg. polyurethanes, silane coupling agents, and fillers, (d) a **printed** pattern layer, (e) an adhesive layer, and (f) a heat-sealable resin layer, in this order. Thus, a laminate of a nylon film/vapor-deposited SiO₂/a polyurethane coating contg. N-.beta.(aminoethyl)-.gamma.-**aminopropyltrimethoxysilane** and powd. SiO₂/a polyurethane ink-**printed** layer/a polyester polyol- and isocyanate-based polyurethane adhesive/LDPE showed O and water vapor permeability 1.2 cm³/m²/day and 7.0 g/m²/day, resp.
- IC ICM B32B009-00
ICS B32B027-40; B65D001-09; B65D081-24; B65D081-34; C08J007-04; C23C014-08; C23C016-40
- CC 38-3 (Plastics Fabrication and Uses)
- ST packaging container multilayer **laminate plastic**

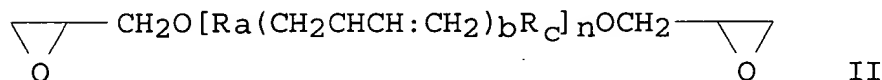
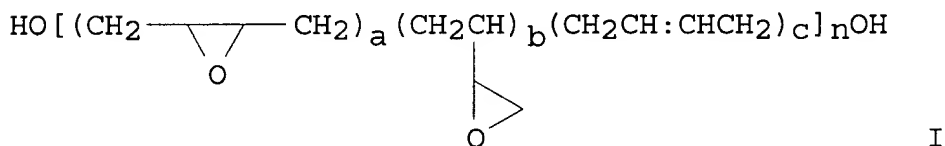
transparency; oxygen barrier **laminate plastic**
 packaging container; vapor barrier **laminate**
plastic packaging container; **laminate**
plastic inorg oxide film packaging; silane coupling agent
 polyurethane coating laminate; aminoethylaminopropyltrimethoxysilane
 coupling agent polyurethane coating laminate; nylon film silica
 polyurethane coating laminate; LDPE heat sealable resin laminate
 packaging

- IT Polyurethanes, uses
 (coating layer and **printing** ink layer; transparent O-
 and vapor-impermeable multilayer **plastic**
laminate and its use in container for packaging)
- IT Polyamides, uses
 Polyesters, uses
 (flexible substrate film; transparent O- and vapor-impermeable
 multilayer **plastic laminate** and its use in
 container for packaging)
- IT Containers
 (gas-impermeable, multilayer; transparent O- and
 vapor-impermeable multilayer **plastic laminate**
 and its use in container for packaging)
- IT Packaging materials
 (laminated films, multilayer; transparent O- and
 vapor-impermeable multilayer **plastic laminate**
 and its use in container for packaging)
- IT Polyurethanes, uses
 (polyester-, adhesive layer; transparent O- and vapor-impermeable
 multilayer **plastic laminate** and its use in
 container for packaging)
- IT Coupling agents
 (silane, polyurethane coating layer component; transparent O- and
 vapor-impermeable multilayer **plastic laminate**
 and its use in container for packaging)
- IT Bags
 (transparent O- and vapor-impermeable multilayer **plastic**
laminate and its use in container for packaging)
- IT **Laminated plastics**, uses
 (transparent O- and vapor-impermeable multilayer **plastic**
laminate and its use in container for packaging)
- IT 1760-24-3, N-.beta.(Aminoethyl)-.gamma.-
aminopropyltrimethoxysilane 2530-83-8,
 .gamma.-Glycidoxypropyltrimethoxysilane
 (coupling agent in polyurethane coating layer; transparent O- and
 vapor-impermeable multilayer **plastic laminate**
 and its use in container for packaging)
- IT 9003-07-0, Polypropylene 25038-59-9, Poly(ethylene terephthalate),
 uses
 (flexible substrate film; transparent O- and vapor-impermeable
 multilayer **plastic laminate** and its use in
 container for packaging)
- IT 9002-88-4, LDPE
 (heat-sealable layer; transparent O- and vapor-impermeable

IT 7631-86-9, Silica, uses
(vapor-deposited film on substrate or filler in polyurethane coating; transparent O- and vapor-impermeable multilayer **plastic laminate** and its use in container for packaging)

IT 1344-28-1, Alumina, uses
(vapor-deposited film on substrate; transparent O- and vapor-impermeable multilayer **plastic laminate** and its use in container for packaging)

L37 ANSWER 17 OF 26 HCA COPYRIGHT 2003 ACS
123:288854 Glass fiber **substrates** for reinforced
plastic laminates having good soldering heat
resistance. Aoki, Junichi; Yamabe, Shinichi (Kanebo Ltd, Japan).
Jpn. Kokai Tokkyo Koho JP 07109680 A2 19950425 Heisei, 7 pp.
(Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-277658 19931007.



AB The title substrates are coated with a mixt. of butadiene polymers I or II (a, b, c, n .gtoreq.1; R = CH₂CH:CHCH₂) and silane coupling agents and useful for use in **printed** circuit boards. Thus, wetting a desized glass cloth with a mixt. of N-.beta.-(N-vinylbenzylaminoethyl)-.gamma.-**aminopropyltrimethoxysilane** and EMR 45-EPI (I), drying, and impregnating with an epoxy resin varnish gave a prepreg useful for Cu-clad circuit board having good soldering heat resistance.

IC ICM D06M015-693
ICS D06M013-513; D06M015-55

ICI D06M101-00

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 57, 76

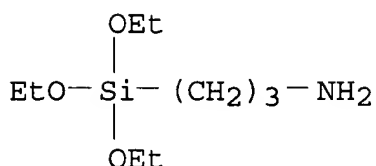
ST glass fiber butadiene polymer priming; silane coupling agent glass fiber; **lamine** reinforced **plastic** glass fiber; solder heat resistance **plastic laminate**; **printed** circuit board **plastic laminate**

IT **Plastics, laminated**

- Plastics, reinforced
(glass fiber **substrates** for reinforced **plastic laminates** having good soldering heat resistance)
- IT Coupling agents
(silane; glass fiber **substrates** for reinforced **plastic laminates** having good soldering heat resistance)
- IT Electric circuits
(**printed**, glass fiber **substrates** for reinforced **plastic laminates** having good soldering heat resistance)
- IT Glass fibers, uses
(textiles, KS 1633; **substrates** for reinforced **plastic laminates** having good soldering heat resistance)
- IT 68092-72-8
(coupling agents; glass fiber **substrates** for reinforced **plastic laminates** having good soldering heat resistance)
- IT 169494-73-9, EMR 45EPI 169494-74-0, EMR 45EPT
(glass fiber **substrates** for reinforced **plastic laminates** having good soldering heat resistance)
- L37 ANSWER 19 OF 26 HCA COPYRIGHT 2003 ACS
117:235501 **Printable** laminates and their manufacture. Chiba, Mitsushige; Nishiyama, Satoshi (Japan). Jpn. Kokai Tokkyo Koho JP 04163040 A2 19920608 Heisei, 4 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1990-285978 19901025.
- AB **Printable** laminates are prepd. from thin nonorg. layers selected from gold, metal, and ceramic membranes; org. membranes selected from paper and plastic films; and treating agents comprising monomers and/or reactive compds. Thus, a laminate prepd. from gold foil, paper, and a soln. of mainly Epikote 1004, Epikote 1007, phenolic resin, coupling agent of .gamma.-glycidooxypropyltrimethoxysilane and .gamma.-(2-aminoethyl) **aminopropyltrimethoxysilane**, and solvents had water contact angle 100-105.degree..
- IC ICM B32B027-10
ICS B32B015-08
- CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 42, 56, 57
- ST **printable** gold laminate; metal **printable** laminate; ceramic **printable** laminate; epoxy phenolic **printable** laminate; paper laminate **printable**
- IT Epoxy resins, uses
(amine or phenolic resin-crosslinked, **printable** laminates contg.)
- IT Phenolic resins, uses
(crosslinking agents, for epoxy resins, for **printable** laminates)
- IT Paper substitutes
(**printing**, plastic film laminates)

- with gold or metal or ceramic membranes as)
- IT Acrylic polymers, uses
Metals, uses
Polyamides, uses
Polyesters, uses
(thin membranes, **printable** laminates contg.)
- IT Membranes
(ceramic, thin, **printable** laminates contg.)
- IT Siloxanes and Silicones, uses
(epoxy, thin membranes, **printable** laminates contg.)
- IT Paper
(laminates, **printable**, contg. gold or metal or ceramic membranes)
- IT Epoxy resins, uses
(siloxane-, thin membranes, **printable** laminates contg.)
- IT 25068-38-6
(phenolic resin-crosslinked, **printable** laminates contg.)
- IT 7440-57-5, Gold, uses 38294-69-8
(thin membranes, **printable** laminates contg.)
- L37 ANSWER 22 OF 26 HCA COPYRIGHT 2003 ACS
113:116711 **Laminating plastic** film on
printing paper having window opening. Kubota, Tsutomu;
Miyaji, Masuo; Kotani, Reiichi (Takeda Chemical Industries, Ltd.,
Japan). Jpn. Kokai Tokkyo Koho JP 02090973 A2 19900330 Heisei, 11
pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1988-243553
19880927.
- AB **Printing** paper with a window opening is coated with a
photocurable adhesive contg. polyurethane (meth)acrylate and silane,
titanate, or Al coupler, bonded with a film under nip roll pressure,
and irradiated with UV or electron beam to obtain the title
laminates with low volatiles during drying of adhesive and high
initial adhesive strength under low nip pressure. Thus,
polypropylene glycol (mol. wt. 1000) 2745, dipropylene glycol 1106,
and IPDI 2666 parts were reacted in 1687 parts AcOEt, treated with
232 parts hydroxyethyl acrylate, and dild. with 2813 parts iso-PrOH
to give soln. A. Polypropylene glycol (mol. wt. 1000) 20,000,
trimethylolpropane 134, and hydrogenated xylylene diisocyanate 4850
parts were reacted in 6449 parts AcOEt, treated with 812 parts
hydroxyethyl acrylate, and dild. with 10,800 parts iso-PrOH to give
soln. B. An adhesive contg. the soln. A 50, the soln. B 50,
iso-PrOH 35, .gamma.-**aminopropyltriethoxysilane** 0.6,
2,2-dimethoxy-2-phenylacetone 0.6, 1-hydroxycyclohexyl Ph ketone
0.6, and antioxidant 0.15 part showed initial adhesive strength 750
g/15 mm between paper and a PVC film under nip roll pressure 10
kg/cm² and at 25.degree..
- IT 919-30-2, .gamma.-**Aminopropyl**
triethoxysilane
(couplers, in photocurable polyurethane adhesives, for lamination
of paper with plastic windows)
- RN 919-30-2 HCA

CN 1-Propanamine, 3-(triethoxysilyl)- (9CI) (CA INDEX NAME)



IC ICM B05D001-28
ICS B05D003-06; C08F299-06
CC 38-3 (Plastics Fabrication and Uses)
ST film **plastic** window paper **lamine**te; PVC film
window paper laminate; polyurethane acrylate adhesive paper
laminate; silane coupler adhesive paper laminate
IT 546-68-9, Titanium tetraisopropoxide **919-30-2**, .gamma.-
Aminopropyl triethoxysilane 7429-90-5D,
Aluminum, compds.
(couplers, in photocurable polyurethane adhesives, for lamination
of paper with plastic windows)

=> d l38 1-31 ti

L38 ANSWER 1 OF 31 HCA COPYRIGHT 2003 ACS
TI Water-resistant polymer/hard coating layer laminates and automobile
windows thereof

L38 ANSWER 2 OF 31 HCA COPYRIGHT 2003 ACS
TI Primer compositions with durable adhesion to silicone rubbers

L38 ANSWER 3 OF 31 HCA COPYRIGHT 2003 ACS
TI Heat- and retort-resistant polyurethane adhesive compositions and
their manufacture

L38 ANSWER 4 OF 31 HCA COPYRIGHT 2003 ACS
TI Organopolysiloxane sealing compositions having improved adhesion
strength for construction materials

L38 ANSWER 5 OF 31 HCA COPYRIGHT 2003 ACS
TI Gas-barrier laminated films having inorganic-organic hybrid polymer
layers

L38 ANSWER 6 OF 31 HCA COPYRIGHT 2003 ACS
TI Gas-barrier laminated films having metal oxide and inorganic-organic
hybrid polymer layers

L38 ANSWER 7 OF 31 HCA COPYRIGHT 2003 ACS
TI Gas-barrier laminated films having inorganic-organic hybrid polymer
layers

L38 ANSWER 8 OF 31 HCA COPYRIGHT 2003 ACS

- TI One-component crosslinkable thermoplastic polymer compositions
- L38 ANSWER 9 OF 31 HCA COPYRIGHT 2003 ACS
- TI Bilayered silicone resin-coated products with warm water and weather resistance
- L38 ANSWER 10 OF 31 HCA COPYRIGHT 2003 ACS
- TI Gas-barrier and moisture-proof films
- L38 ANSWER 11 OF 31 HCA COPYRIGHT 2003 ACS
- TI Gas-barrier and water-resistant coatings and their laminates with thermoplastic films
- L38 ANSWER 12 OF 31 HCA COPYRIGHT 2003 ACS
- TI Transparent electrically conductive multilayer films having low water absorption
- L38 ANSWER 13 OF 31 HCA COPYRIGHT 2003 ACS
- TI Aqueous polyurethane coating composition for containers with good scratch shielding properties
- L38 ANSWER 14 OF 31 HCA COPYRIGHT 2003 ACS
- TI Water- and oil-repellent, cold-curable polyorganosiloxane block copolymer composition, production thereof and base material coated with the same
- L38 ANSWER 15 OF 31 HCA COPYRIGHT 2003 ACS
- TI Manufacture of abrasion- and mar-resistant coating compositions for polycarbonate lenses
- L38 ANSWER 16 OF 31 HCA COPYRIGHT 2003 ACS
- TI Transparent electrically conductive laminates with good chemical resistance and gas-barrier characteristics
- L38 ANSWER 17 OF 31 HCA COPYRIGHT 2003 ACS
- TI Fluoroalkyl-functional organopolysiloxane-containing compositions based on water and(or) alcohol, procedure for their production and use
- L38 ANSWER 18 OF 31 HCA COPYRIGHT 2003 ACS
- TI Fluoroalkyl-functional organopolysiloxane-containing water-thinned compositions, procedure for their production and use
- L38 ANSWER 19 OF 31 HCA COPYRIGHT 2003 ACS
- TI Transparent electroconductive laminates showing excellent durability, solvent resistance, and gas-barrier property for electrodes
- L38 ANSWER 20 OF 31 HCA COPYRIGHT 2003 ACS
- TI Electrically conductive transparent laminates with good gas-barrier property, solvent resistance, and interlayer adhesion

- L38 ANSWER 21 OF 31 HCA COPYRIGHT 2003 ACS
TI Interior trim panels and method for manufacturing such panels using siliceous materials
- L38 ANSWER 22 OF 31 HCA COPYRIGHT 2003 ACS
TI Liquid crystal display device with gas barrier film
- L38 ANSWER 23 OF 31 HCA COPYRIGHT 2003 ACS
TI Surface-protective decorative sheets with good resistance to water, heat, soiling and mildew
- L38 ANSWER 24 OF 31 HCA COPYRIGHT 2003 ACS
TI Manufacture of antistatic gas-barrier laminates including films with silsesquioxane or metalloxane layers
- L38 ANSWER 25 OF 31 HCA COPYRIGHT 2003 ACS
TI Transparent electrically conducting laminates and transparent tablets showing prevention of interference fringe
- L38 ANSWER 26 OF 31 HCA COPYRIGHT 2003 ACS
TI Transparent conductive sheet
- L38 ANSWER 27 OF 31 HCA COPYRIGHT 2003 ACS
TI Gas-barrier coating for laminated packaging material
- L38 ANSWER 28 OF 31 HCA COPYRIGHT 2003 ACS
TI Laminated packaging material with gas-barrier coating
- L38 ANSWER 29 OF 31 HCA COPYRIGHT 2003 ACS
TI Reactive hot-melt adhesives for laminated film food packagings
- L38 ANSWER 30 OF 31 HCA COPYRIGHT 2003 ACS
TI Two-liquid adhesive compositions and lamination therewith
- L38 ANSWER 31 OF 31 HCA COPYRIGHT 2003 ACS
TI Organosiloxane compositions for abrasion resistant and adhesion promoting protective coatings

=> d l38 1,15,23 cbib abs hitstr hitind

- L38 ANSWER 1 OF 31 HCA COPYRIGHT 2003 ACS
137:233654 Water-resistant polymer/hard coating layer laminates and automobile windows thereof. Kin, Shinichiro; Omori, Satoru; Minematsu, Hiromasa (Teijin Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002264271 A2 20020918, 11 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 2001-64759 20010308.
- AB At least one side of a polymer substrate is laminated with a 2-200 .mu.m radiation-cured layer, a 0.01-1 .mu.m aminosilane layer prepd. by hydrolytic condensation of Si alkoxides contg. .gtoreq.1 amino group, and a 1.5-10 .mu.m hard coating layer formed in a vacuum film-forming process in this order. Thus, polycarbonate substrate

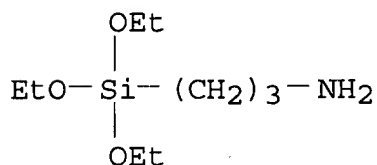
(Panlite PC 1151) was coated with ethoxylated trimethylolpropane triacrylate (Aronix M 350) contg. Irgacure 184 and Ruva 93 (reactive UV absorber), irradiated with UV, further coated with a soln. contg. hydrolyzed .gamma.-aminopropyltriethoxysilane (KBE 903), heated, and subjected to electron beam deposition of SiO₂ to give a laminate showing total light transmittance 89.5%, haze 0.9%, pencil hardness 3H, haze increase by taber abrasion 1.6%, cross-cut adhesion 100/100, and no cracks after immersing in boiling water.

IT 29159-37-3P
 (polycarbonate/hard coating layer laminates for automobile windows with good abrasion and water resistance)
 RN 29159-37-3 HCA
 CN 1-Propanamine, 3-(triethoxysilyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 919-30-2

CMF C9 H23 N O3 Si



IC ICM B32B027-00
 ICS B60J001-00; B60R013-04; G02B001-10

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42

IT Glass substitutes

Laminated plastics, uses

Polycarbonates, uses

(polycarbonate/hard coating layer laminates for automobile windows with good abrasion and water resistance)

IT 29159-37-3P 458541-59-8P, Aronix M 350-Ruva 93 copolymer
 458541-60-1P

(polycarbonate/hard coating layer laminates for automobile windows with good abrasion and water resistance)

L38 ANSWER 15 OF 31 HCA COPYRIGHT 2003 ACS

129:137361 Manufacture of abrasion- and mar-resistant coating compositions for polycarbonate lenses. Hughes, Frank J. (Vision-Ease Lens, Inc., USA). U.S. US 5786032 A 19980728, 4 pp., Cont. of U.S. Ser. No. 95,791, abandoned. (English). CODEN: USXXAM. APPLICATION: US 1994-361880 19941222. PRIORITY: US 1991-796007 19911122; US 1993-95791 19930722.

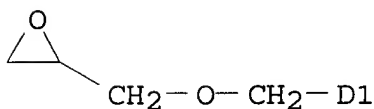
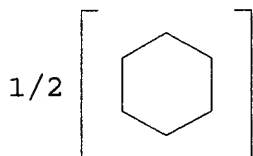
AB The compn. is a mixt. of a nonsilane org. epoxy compd. and a partially hydrolyzed aminosilane blocked with a carbonyl-contg. compd. in an org. solvent. The mixt. is applied to a plastic lens surface and heated to cure the

coating into a hard transparent film which can be tinted quickly and darkened with an org. dye. A polycarbonate lens was coated from an EtOH mixt. of .gamma.-propylaminotriethoxysilane (blocked with MEK) and cyclohexane dimethanol diglycidyl ether and cured.

IT 210710-64-8, (.gamma.-Aminopropyl)triethoxysilane-cyclohexanedimethanol diglycidyl ether copolymer (abrasion- and mar-resistant coating compns. for polycarbonate lenses)
 RN 210710-64-8 HCA
 CN 1-Propanamine, 3-(triethoxysilyl)-, polymer with 2,2'-[cyclohexanediylbis(methyleneoxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

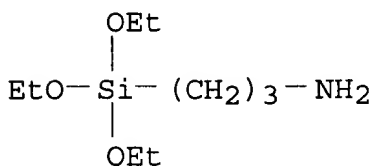
CM 1

CRN 67938-13-0
 CMF C14 H24 O4
 CCI IDS



CM 2

CRN 919-30-2
 CMF C9 H23 N O3 Si



IC ICM B05D003-02
 NCL 427387000

CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 38, 73

IT 210710-64-8, (.gamma.-Aminopropyl)triethoxysilane-cyclohexanedimethanol diglycidyl ether copolymer

(abrasion- and mar-resistant coating compns. for polycarbonate lenses)

L38 ANSWER 23 OF 31 HCA COPYRIGHT 2003 ACS

126:145218 Surface-protective decorative sheets with good resistance to water, heat, soiling and mildew. Kai, Hisaya; Sakazaki, Shinji; Takahashi, Hirotaka; Asakino, Akio; Hatsusegawa, Kazuo (Hitachi Kasei Polymer, Japan; Tokyo Gasu Furoro Materiary Kk; Tobi Kk). Jpn. Kokai Tokkyo Koho JP 08323920 A2 19961210 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-135442 19950601.

AB Title sheets useful for covering furniture and walls comprise a base substrate (S), a layer selected from tetrafluoroethylene (I)-ethylene copolymer, I-perfluoroalkyl vinyl ether copolymer and hexafluoropropylene-I copolymer on 1 side of S, and a metal foil layer bearing a silylated or silicone-contg. adhesive layer on the other side of S. Thus, laminating 1 side of a soft PVC sheet (S) to the corona discharge-treated surface of a I-perfluoroalkyl vinyl ether copolymer film using an adhesive contg. Hibon 7040 and Desmodur R-E, laminating an Al foil to the other side of S through an adhesive contg. Hibon 7663 and Desmodur R-E, and applying a release paper coated with a silylated acrylic adhesive on the top of the Al foil gave a title sheet.

IT 186699-37-6P 186699-39-8P

(adhesive compn.; in surface-protective decorative sheets with good resistance to water, heat, soiling and mildew)

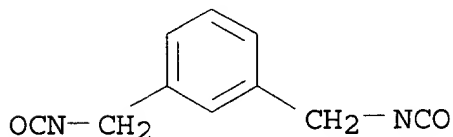
RN 186699-37-6 HCA

CN 2-Propenoic acid, polymer with 1,3-bis(isocyanatomethyl)benzene, butyl 2-propenoate, ethenyl acetate, 2-ethylhexyl 2-propenoate, ethyl 2-propenoate, 2-hydroxyethyl 2-propenoate and 3-(triethoxysilyl)-1-propanamine, graft (9CI) (CA INDEX NAME)

CM 1

CRN 3634-83-1

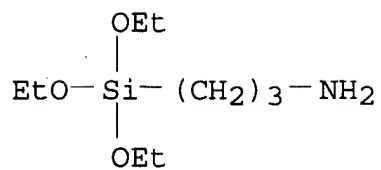
CMF C10 H8 N2 O2



CM 2

CRN 919-30-2

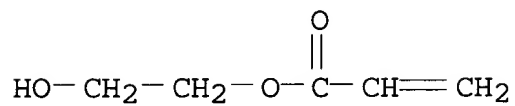
CMF C9 H23 N O3 Si



CM 3

CRN 818-61-1

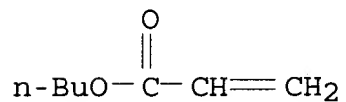
CMF C5 H8 O3



CM 4

CRN 141-32-2

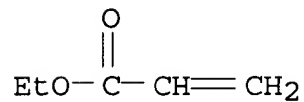
CMF C7 H12 O2



CM 5

CRN 140-88-5

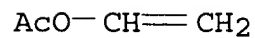
CMF C5 H8 O2



CM 6

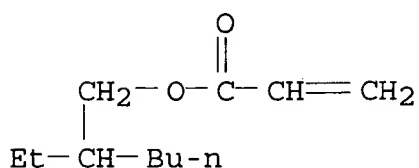
CRN 108-05-4

CMF C4 H6 O2



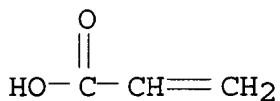
CM 7

CRN 103-11-7
CMF C11 H20 O2



CM 8

CRN 79-10-7
CMF C3 H4 O2



RN 186699-39-8 HCA
CN 2-Propenoic acid, polymer with butyl 2-propenoate, Coronate L, ethenyl acetate, 2-ethylhexyl 2-propenoate, ethyl 2-propenoate, 2-hydroxyethyl 2-propenoate and 3-(triethoxysilyl)-1-propanamine, graft (9CI) (CA INDEX NAME)

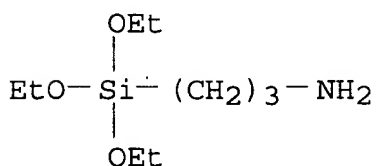
CM 1

CRN 39278-79-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

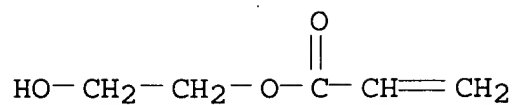
CM 2

CRN 919-30-2
CMF C9 H23 N O3 Si



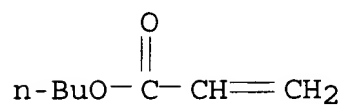
CM 3

CRN 818-61-1
CMF C5 H8 O3



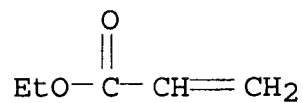
CM 4

CRN 141-32-2
CMF C7 H12 O2



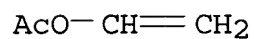
CM 5

CRN 140-88-5
CMF C5 H8 O2



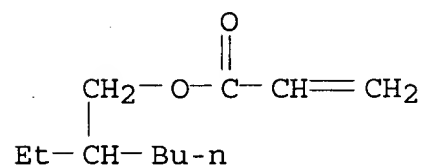
CM 6

CRN 108-05-4
CMF C4 H6 O2



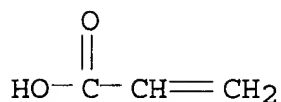
CM 7

CRN 103-11-7
CMF C11 H20 O2



CM 8

CRN 79-10-7
CMF C3 H4 O2



IC ICM B32B015-08
ICS B32B007-10; B32B027-00; B32B027-06; B32B027-30; B32B033-00
CC 38-3 (Plastics Fabrication and Uses)
IT **Laminated plastics**, uses
(manuf. of surface-protective decorative sheets with good water,
heat, soil, and mold resistances for furniture and walls)
IT 58308-29-5P, Hexafluoroacetone-hexafluoropropylene-vinylidene
fluoride copolymer 137426-12-1P 186494-44-0P
186699-37-6P 186699-39-8P
(adhesive compn.; in surface-protective decorative sheets with
good resistance to water, heat, soiling and mildew)